OPPORTUNITIES FOR THE NZ PORK INDUSTRY TO COMPETE WITH IMPORTS

Kellogg Rural Leadership Programme
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I wish to thank the Kellogg Programme Investing Partners for their continued support:

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EXECUTIVE SUMMARY i

The aim of this report is to identify opportunities for the NZ pork producers to compete with continued and increase imported pork. The three main areas I have investigated are "WHY?" we need to compete. I investigate the reasons for the increase concentrating on pork production in relation to population data. I studied the imported product, its origin and its form and where it is used. I look at the "WHAT?" we need to compete on. Looking at the drivers for purchase and finally I analyse the attributes of pork, such as price quality, welfare and sustainability to see if we "CAN" compete imports.

The main findings of the report are:

- Increased population growth
- Forecast population growth
- Stagnant domestic pork production
- Lack of convenient pork products
- Pork is an affordable protein option
- Need to find alternative pig feed solutions

My initial thoughts were that this report was always going to be a price comparison and that because imported pork is considered cheaper NZ produced pork would never be able to compete. I have been surprised to find the strong correlation of population growth to increased consumption of imported pork. It has been a positive to see the reliability of predicted population forecasts. I believe this offers NZ pork producers real certainty if they choose to make a positive change.

The aspect of convenience is an area that producers have much less ability to impact but it is an area of particular significance, if they can offer a convenient and affordable product to millennial consumers. NZ pork producers must find ways to form strong relationships with processors, manufacturers and the hospitality sectors.

At times it has been daunting to look at the volume of domestic pork production that is needed to maintain the current position let alone improve it. It is imperative that the industry moves forward and strengthen its position. Pork producers can be positive when they look at this problem as solid progress has been made in welfare, quality and sustainability. There are traceability capabilities within the supply chain and the NZ consumer wants NZ pork. The pig is an animal that has the fantastic ability to turn products that humans can't eat into something they can. Pig productivity whilst continually improving is not be enough to solve this problem. In the future NZ pork producers must become a more significant industry. With that they will become a significant threat if biosecurity is not maintained at the borders and rather than the industry that can be sacrificed it will be one to be protected. So NZ pork industry you maybe a small group of producers but you are powerful.

Around 95 NZ pork producers:

- Feed 1.963 million people
- On average feed over 20,000 New Zealanders each
- Produce over 82 million meals each year

My recommendation is for the industry to work together and grow. Grow in size, grow in numbers and become an industry that grows rural New Zealand and grows New Zealand.

Acknowledgements ii

Firstly and most importantly I would like to thank my family, Mark (Saint), Honour and Eve. This has been a consuming process and I have only succeeded with your constant support. While not directly involved I would also like to acknowledge the support and sacrifice of my extended family particularly my Grandparents. My much loved Grandma Joan passed away during the final part of writing this report and her effort along with that of my Grandad, which involved milking 22 cows by hand twice a day, gave their family the opportunities they enjoy today, I am forever grateful.

I would like to thank the NZPork Industry Board for their full support not only with the funding to attend the Kelloggs Rural Leadership programme but to the staff for their technical expertise and efforts. Ian, Kirsty, Frances, Jeska and Jane, you have all gone above and beyond for me and I am very grateful.

Sarah Tait, your help with methodology was priceless and was so kindly offered before even being asked.

Terry Copeland, you gave me your experience of Wine Growing Industry without reservation and I am sure you wondered how pork and wine had any link but it enabled me to think much deeper.

Thank you to the wholesalers and manufacturers of Freshpork, Wilson Helaby and Hellers for allowing me access to your team to gain some valuable insights from your side.

I would like to extend a deep and warm thanks to all my cohorts of Course 38. You have been an inspirational group from day 1 and it was certainly never my expectation that the programme would deliver friends let alone life- long friends. Let’s never “Shut the gate” on that.

Finally to the producers of pork, thank you immensely for the faith and trust you have shown in me. It provides me with great strength and fuels the strong sense of obligation I feel as I work on ways to repay the pork industry for what it has given me.

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1.0 INTRODUCTION

"How can New Zealand domestically produced pork compete with imports" has become the most commonly asked question within the New Zealand pork industry in recent times. The purpose of this project is to look at how pork produced in New Zealand can compete, why it has to compete and answer the question, should it compete?

The report aims to investigate:

- NZ demographic data and how this relates to consumption data
- Product attributes and analyse to identify key drivers for consumption
- Imported product, what it is and where it comes from

Since 2006 Imports have increased steadily by average 2% p.a. Domestic productivity has remained settled at around 57,000 pigs/yr. with fluctuations up to 61,000 and down as low as 53,000 (Barugh & Newman, 2018). In this report I look at the factors that may have seen this trend develop and in doing so see if any obvious trigger points occur. I will look at what those imports are and if NZ pork has the ability to replicate them.

Is the industry providing its consumers with what they want, are we selling them the provenance with the product and do they even in fact want what we produce?

2.0 METHOD

The method used for this report was a literature review. Interviews of industry stakeholders were also completed and the comments added throughout the report.

3.0 AIMS & OBJECTIVES

I aim to answer the questions:

- **Why we need to compete?**

It is so important to understand why we need to act. In this report I aim to identify the reasons that have driven increased consumption of imported pork in the New Zealand domestic market. I will look at the effect of population combined with actual domestic pork production over the last 10 years.

- **What we need to compete on?**

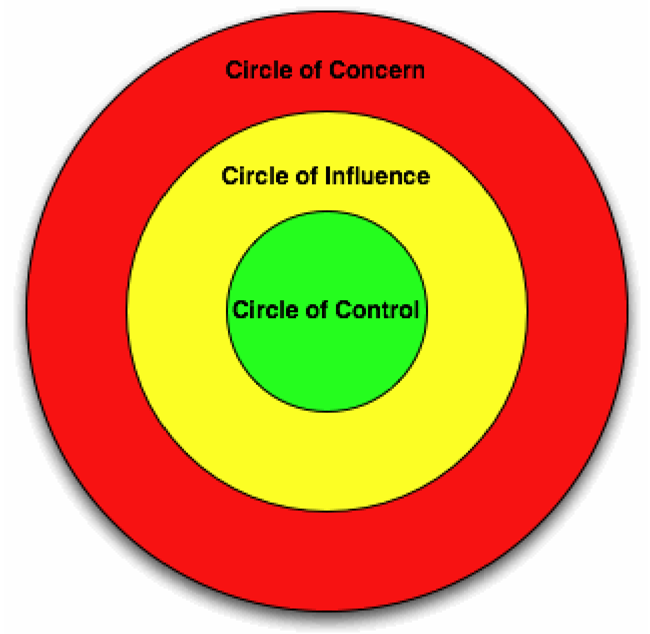
The purpose of this section of the report is to understand the drivers of consumption. By understanding the real reasons consumers make the choices they do I aim to understand if the pork produced domestically is meeting consumer expectations and if we can meet the expectations in the future.

- **Can we compete?**

Throughout the report I will aim to identify where progress has already been made by pork producers. I will look to identify where solid foundations are already in place and look for opportunities to build solidly upon that base.

It is important to remember what aspects that a producer or industry can have control or influence over when identifying a problem and determining if any influence can be had. The area that can be controlled is very small, the area that can be influenced is much greater and there is a large part of concern that over which we have no control.

Figure 1. Circle of Influence. Source: ketogains.com

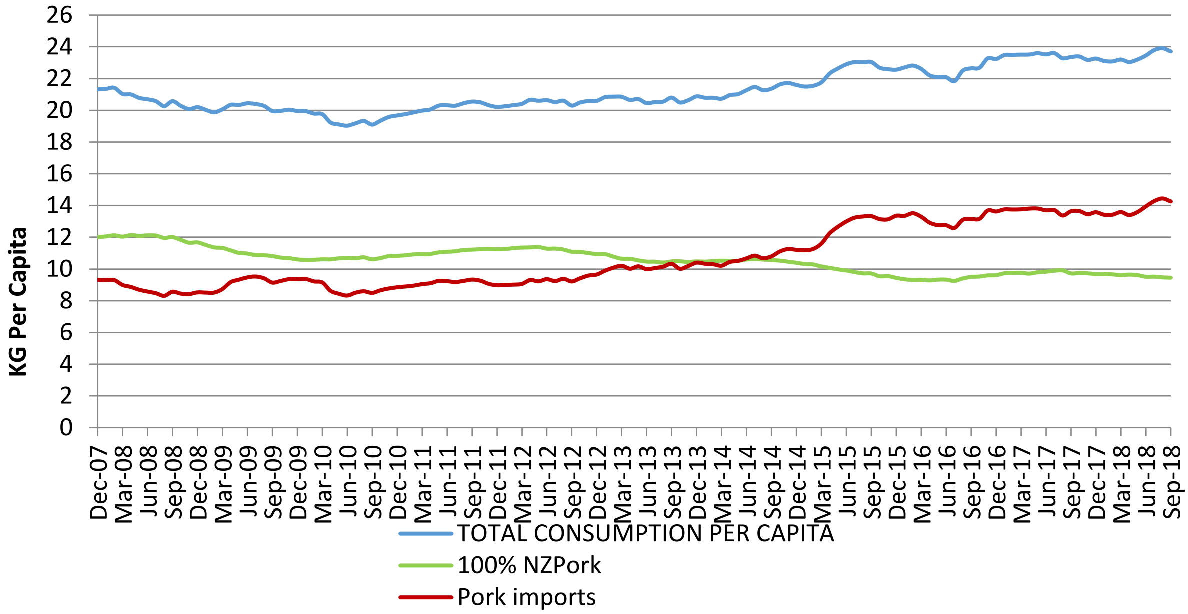


4.0 DO NEW ZEALANDERS WANT NEW ZEALAND PRODUCED PORK?

When looking at the data on imported and locally produced pork and seeing the obvious increase in domestic consumption of imported product it is important to ask ourselves if New Zealand consumers actually want pork produced from New Zealand?

Total pork consumption has increased in the last 10 years domestic consumption and imported consumption have both seen steady increases, the equivalent of 2.08kg per person from 2007-17. Domestic production has decreased in total numbers slaughtered by 5% but total weight of domestic production has remained stable, perhaps showing a slight decrease of (1%) over the same time period due to an increase in the average carcase weight by 3.27kg (Barugh and Newman 2018)

Figure 2. Pork Consumption in NZ. Source: Barugh & Newman (2018)

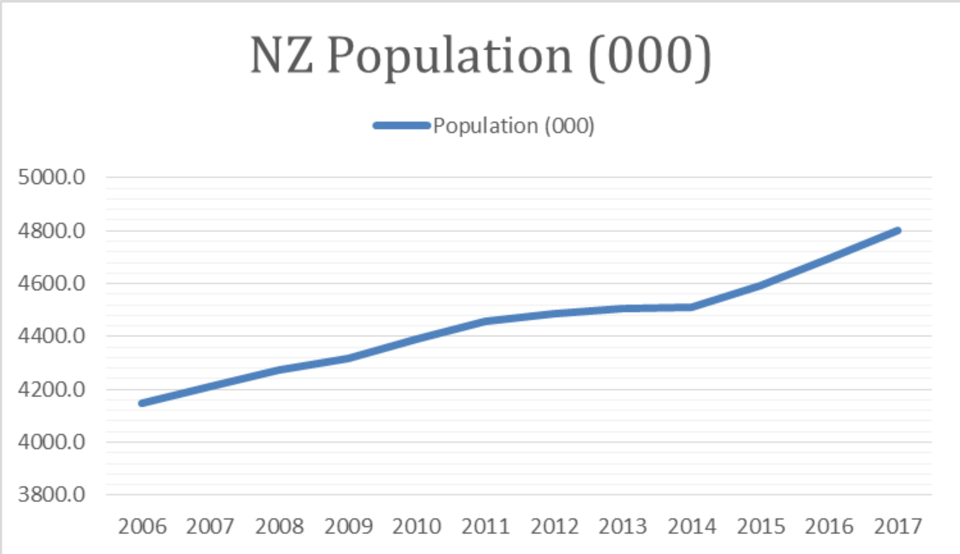


Domestic population growth has a strong link to the increased demand for pork. Per capita consumption has substantially increased and coupled with this there is the effect of strong NZ population increase.

4.1 REASONS FOR INCREASED PORK DEMAND

A producer could argue that the implementation of several marketing campaigns funded by levies from NZ pork producers are the driver for increased consumption. But as domestic production has slightly decreased it can also be argued that population increase has driven the increased demand and the increase of imports. The increase in imported pig meat clearly follows the same trend as the increase in NZ population. From April 2014 to May 2018 population has increased 381,000 (Statistics NZ) and Figure 3 also clearly shows this. The NZ pork industry has experienced a double whammy as not only has consumption increased but population has too and with that we see clear evidence of the reason why imported pork is needed. Imported pork is needed to fill the consumer's protein requirement as there is not enough domestically produced product.

Figure 3. NZ Population Data from 2006-2017. Source: Barugh and Newman (2018)



When analysing figure 4 it is important to note that from 2006-17:

- NZ pork production has decreased 72,000 tonnes, 10.4%
- Imported pork consumption has increased by 370,849 tonnes, 89%
- NZ pork consumption has decreased 0.9kg per person
- Imported pork consumption has increased 3.14kg per person
- Total consumption up by 12%
- Population up by 15% (Barugh & Newman, 2018)

Industry stakeholders have been clear in the interviews that the “Availability of NZ pork definitely has bearing on why imports used”.

Figure 4. Data Table of Population and Per Capita Consumption

Source: Barugh 2018

Date	Imports %	Population Total (000)	Total Consumption Kg per capita	Kg NZ Pork	KG Imports
2006	40.6%	4147.9	20.58	12.22	8.36
2007	43.1%	4212.4	21.04	11.98	9.06
2008	42.1%	4272.0	20.69	11.98	8.70
2009	45.4%	4318.3	20.14	10.99	9.15
2010	45.0%	4389.9	19.42	10.67	8.75
2011	45.2%	4459.5	20.22	11.09	9.13
2012	45.3%	4486.5	20.50	11.21	9.29
2013	48.9%	4505.0	20.68	10.56	10.12
2014	50.4%	4508.6	21.22	10.52	10.69
2015	55.9%	4594.7	22.49	9.90	12.62
2016	58.0%	4694.1	22.71	9.51	13.16
2017	59.1%	4801.4	23.12	9.46	13.66

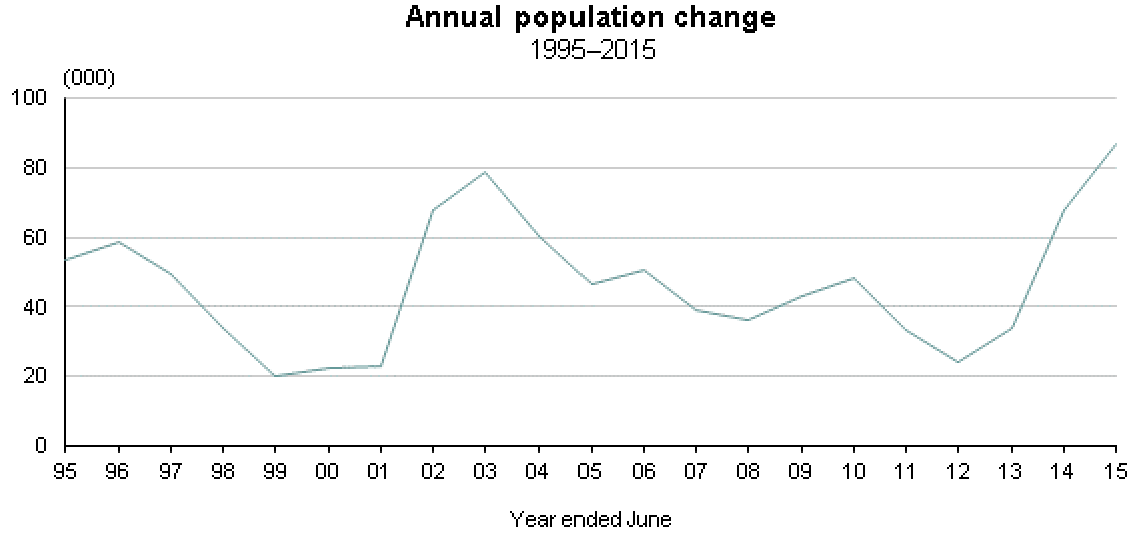
This data in the table clearly demonstrates the increase in the percentage of imported pork, the decrease in consumption of NZ produced pork, population increases and the on-going increase in per capita consumption of pork. It is a black and white version of the pork industry's problem and clearly identifies the two drivers of increased per capita consumption and the increased population. The volumes of domestic and imported product are the resulting problem that the industry faces.

"The availability of NZ pork definitely has bearing on why imports used"

4.2 POPULATION PREDICTIONS

How may NZ consumers will we have in the future? Population data suggests that we will have an 11% increase in them by 2025. (Statistics NZ). This graph is a forecast of how the population to increase based on the last ten years of population change.

Figure 5. Annual Population Change 1995-2015.   Source: Statistics NZ



New Zealand's population (4.69 million in 2016) has a 90 percent probability of increasing to 4.89–5.14 million in 2020, and to 5.01–5.51 million in 2025 (Statistics NZ).

NZ pork is unique in the position of being one of the few primary industries that actually can't meet domestic demand and doesn't export any significant volumes. However while our domestic market is our marketplace this has strong similarities to other primary industries who are working on strategies on how to feed the world's growing population. So while NZ pork's place of sale is different to other primary producers the challenge of the NZ primary industry will continue for the next generation as we try to feed 9 billion by 2050, from just over 7 billion today (World Bank, 2012).

We can be assured that the scenario of a more populated NZ is indeed a very reliable prospect.

5.0 WHY DO NEW ZEALANDERS WANT NZ PRODUCED PORK?

Market research conducted by NZ Pork tell us that YES New Zealanders want NZ Pork (Nielson 2014). We are seeing exporting primary sector companies build their marketing strategies around the New Zealand factor. Companies such as Synlait with their "Lead with pride" strategy, Fonterra with their "Dairy for life" strategy and the industry body Beef and Lamb NZ with their "Taste pure New Zealand" strategy demonstrate the some key traits that the consumer is looking for.

Figure 6. Examples of Companies with a NZ Factor in their Marketing Strategies Source:Beef & Lamb NZ, Synlait, Zespri,Fonterra

It would therefore indicate that both domestically and internationally the consumer is looking for the similar product traits and the same key deliverables of sustainability, safety and animal welfare.

Market research will tell us time and time again that our target customer is the female of the household who is purchasing the family meals once a week. Our consumer in that scenario is the family including herself that she is buying and subsequently preparing that meal for.

Market research conducted on behalf of the industry indicates that pork is bought fortnightly and is bought as a “special occasion” ingredient (Neilson, 2014). The New Zealand Pork Industry Board will use the celebration aspect as part of it NZ Pork marketing campaign strategy for the 2018-19.

Generations can be defined as “The Silent Generation” born 1928-1945 (73-90 years old), “Baby Boomers” born 1946-1964 (54-72 years old), “Generation X” born 1965-1980 (38-53 years old) and “Millennials” born 1981-1996 (22-37 years old) (Wikipedia). From this we can see that Millennials make up our most important group of consumers and will be the focus of our current marketing strategies for the short and mid-term future. As other groups are identified such as Flexitarians and Transumers, particular needs of these groups will be sought, researched and more precise strategies identified to target these consumer groups. Trends such as Megatrends, Paleo, and Wholefoods etc. will also form and transform current purchasing choices. The battle to keep up with our consumer and work out the why’s will be the same as fashion, constantly evolving and changing and all based on some very unscientific reasons as these are generally based on emotional feelings.

Millennials make up our most important group of consumers

5.1 CONSUMER DRIVERS

What are the key factors driving a purchase? Is it convenience, quality or price?

The question of why do New Zealanders want to purchase New Zealand produced pork is a very complicated one. There are a number of factors driving each and every purchase and these can be described in a number of ways. Perry and Grace describe them as the 4 P's.

The 4 Ps for driving up consumption are promotion (marketing), product (including quality, portion size and presentation), place (selling or eating environment) and price (Perry B, Grace D).

Choices are made under a wide range of preferences, which include financial, medical, dietary, whimsical, ethical, philosophical and ideological. While choices can often be rationalised, consumption behaviour often diverges widely from articulated preferences (Perry B, Grace D).

The common themes when answering the "why" question appear in a study around food safety the paper, almost uniquely, presents a bleaker view and a note of caution that changing behaviour is not just a matter of rational self-interest and public spiritedness, but food choices are mainly driven by instinctive and emotional thinking, and this consistently and often invisibly undermines our attempts to attain our food goals (de Jonge et al. 2014). The instinctive and emotional theme is very real and what the NZ Pork Industry currently sees when consumers say they want a number of key attributes in a product but ultimately make a decision at the point of purchase that is contrary. In 2015 a large media campaign was driven by animal right activists to end of gestational sow crates being used in domestic production. A NZ ban on sow crates was introduced and the NZ market saw marked increase in consumption of pork produced from sows in crates.

It is commonly believed that a New Zealand consumer will nearly always choose a NZ product. As the Social Licence to Operate becomes more engrained in our society, we will see a NZ consumer who has a Social Obligation to purchase.

In a tracking study of 15,600 people and their attitudes & behaviour towards socially, environmentally and economically responsible brands it was identified that Women tend to focus on Maslow's Hierarchy of Needs (Colmar Brunton, 2017).

Figure 7. Maslow's Hierarchy of Needs. Source: simplypsycology.org

The Maslow Hierarchy of Needs is another example of the complex reasons that drive a purchase.

6.0 WHAT ARE THE IMPORTS?

While the goal is to compete with imports it is important to understand the imported product. Its form, its origin and its attributes so we can determine exactly what we are competing with.

Figure 8. Relative Supply and Price of Imported Pork by Form Sept 2018. Source: Barugh and Newman

Pork form	CIF NZ$	KGs Imported	NZ$/kg	%of Volume
Frozen	14,076,509	3,553,990	3.96	93
Chilled	380,511	81,184	4.69	2
Processed	651,613	70,351	9.26	2
Cured	1,265,347	96,279	13.14	3
TOTAL	16,373,980	3,800,804	4.31	100

This table shows that the 93% of imported pork is entering New Zealand as a frozen product. This is bar far the most significant form of imports and the area where the most understanding of the products that these are used for is needed. Frozen product is a form that is most commonly used for ham, bacon and food service products such as spare ribs and pork bellies (Wholesaler pers.comms.)

Figure 9. Relative Supply of Imported Pork by Country September 2018   Source: Barugh and Newman

Country	Total Kg	%
Canada	1,165,797	30.7
Spain	699,813	18.4
Australia	555,360	14.6
United States of America	481,821	12.7
Germany	222,625	5.9
Finland	147,380	3.9
Denmark	143,521	3.8
Ireland	117,200	3.1
Sweden	93,812	2.5

Figure 9 shows the top 4 countries that pork is imported from is Spain, Canada, Australia and USA. The listed countries contribute more to more than 95% of the imported pork that was imported from 17 countries.

The Spanish Environment Ministry recently reported for the first time pig numbers are higher than humans. At 50 million pigs they now have 3.5million more pigs than humans. Spanish figures show an increase of over 9 million pigs since 2013. Media recently reported that Spanish environmentalists say nitrates from animals' waste products are now contaminating ground water (The Guardian Weekly, Aug 18). Canada and the USA are examples of countries who's production systems that would not be legal in NZ. So it is important to note the imported pork products are not of the on parity with NZ pork.

During the interviews an industry stakeholder described imports as "Primarily legs for Christmas hams, middles for bacon and shoulders for manufacturing". It would appear that the frozen product coming largely from Spain, Canada, Australia and the USA is being processed further once it has arrived in NZ. So the processing and manufacturing sector are an area where much focus is needed.

95% of imported pork is entering New Zealand as a frozen product

When looking for a comparative industry that has to compete with imported product I looked at the wine industry. It competes with domestic consumption of approx. 75% NZ produced v 25% imported.
MPI Situation and Outlook for Primary Industries December 2017 found that the domestic market is an important sales outlet for our wine industry and opportunities exist to expand these sales given ongoing growth in wine tourism. The report mentions that although off-shore markets represent the main sales outlet for New Zealand wine at 252 million litres, the domestic market is also an important sales channel, accounting for 54 million litres in the year to June 2017.

In the domestic market, New Zealand wines sit alongside almost 40 million litres of imported wine during the year ended June 2017 (MPI, 2017). Another very valid point raised in the MPI Situation and Outlook report was that Australia dominates wine imports by volume, representing almost three-quarters of all wine imported into New Zealand, while France stands out against other countries in terms of price per litre. The champagne wine category from France has shown strong growth in sales over the past five years reflecting increased efforts by this country to raise brand awareness and consumer appeal through strong promotional activity (MPI, 2017). Sauvignon Blanc and Chardonnay dominate the still white wine category in the New Zealand domestic market, accounting for over 50 percent of total volume sales while Pinot Noir dominates red wine sales (MPI, 2017). This report is particularly valuable to see the value of understanding the import and realising where the opportunities may be for a particular industry.

Figure 10. Wine Export Volumes, Prices and Values 2013-19. Source: MPI (2017)

		Actual				Forecast	
Year to 30 June	2013	2014	2015	2016	2017	2018	2019
Export volume (million litres)	169.7	186.2	206.7	211.3	252.0	250.0	255.0
Export price ($NZ/litre)	7.09	7.11	6.81	7.36	6.57	6.90	7.05
Export revenue ($NZ million)	1,204	1,323	1,408	1,558	1,660	1,730	1,800

The NZ wine industry's strength lies in that their consumers know they produce quality lighter white wines like Sauvignon Blanc and sell it at the proven sweet spot of $9-14. They know that the imported products are either something they either can't compete with like Champagne or heavy Australian reds and won't compete with like cheap low quality wines. They have identified a strong link with regional preferences to drink wines produced from New Zealanders home region. They also note a strong correlation between reduced cost of production and quality. It was particularly interesting to hear that the NZ wine industry currently exports only a 1/3 of the volume compared to Australia into the USA but receives the same value (T.Copeland, pers.comms.).

6.1 CONVENIENCE

Product convenience in the meat sector is not a new phenome and would have started its development from the time man first killed an animal for food. Historically domestic production of animals and their slaughter would have occurred as the cooler months approached so that meat could be stored for longer as the colder temperatures aided in less spoilage of the product. Many ways to increase the length of time meat could be stored for would have occurred with the development of preserving and drying techniques. Sharing the meat within a community was also a way of ensuring maximum use of the animal. The invention of the refrigerator and the freezer brought about significant changes in habits as meat could be stored for longer and longer.

Apart from storage times and methods the development of meat into portions and products that could be cooked much quicker were products such as the humble sausage. So convenience is has been evolving with man and will certainly continue to evolve to meet the needs of its current consumer. The History of Sausage by F.W. Tauber presented at the 29th Annual Reciprocal Meat Conference of the American &at Science Association in 1976 states "The food economy and preservation methods have always been a big factor for survival of man and undoubtable the use of offal and the drying of meat in some form was practiced by early man.” It goes on to mention that “sausage is mentioned in scrolls, household records and in the record books of manor house stewards. For example, the inventory of a 9th Century Bavarian Abbey listed twenty smoked porkers with sausages.”

Today we look at convenience as the way that food fits into our lives. Food has moved from the area of a basic subsistence requirement to a task that needs to be completed quickly in a way and form that meets our needs. The hunter gatherer with a large family to feed has become a professional working family or an individual who lives without the domestic support of others. The convenience based food purchase patterns identifies some associations and attitudes that are the basis of our new demand on the term convenience.

Today we look at convenience as the way that food fits into our lives

In the 2018 report by Peltner and Thiele which focuses on convenience based food purchase patterns based on identification and associations with dietary quality, sociodemographic factors and attitudes it is mentioned that convenience food consumption in industrialized countries has increased steadily over recent decades. A number of factors have contributed to this growth, including the growing number of single-person households and a smaller average household size. It was particularly interesting to note that single households – especially single men – have been found to have a higher consumption of convenience foods than married couples or families with children. It was identified available leisure time (or a lack of it) as a principal driver of the consumption of ready-to-eat foods (Peltner and Thiele, 2018).

A major finding was that the time available for meal preparation played an important role in households deciding whether to prepare a meal from scratch or to buy processed or ready-to-eat alternative. Time to prepare the meal is identified as a critical factor in the definition of convenience. An increased participation of females in the workforce has also contributed to the increasing consumption of convenience foods (Peltner and Thiele, 2018). It is also interesting that paying attention to the healthiness of foods and considering their sustainability seem to be closely related.
The report finds an unwillingness to cook meals from scratch has increased the demand for convenience foods (Peltner and Thiele, 2018). So the lack of cooking skills are also deemed as important factors in the decision to make a more convenient purchase. These areas are where the focus of marketing activity and product development will need to continue as to meet the needs of our consumer today and tomorrow.

There are groups of households that use convenience foods simply because they are quick and easy to prepare without any need to save time. A lack of cooking skills could be the reason why these households prefer these foods.

The 2018 Peltner and Thiele study also found as more members are present in the household. Therefore, choosing processed foods that require less preparation is especially tempting for larger households. With an increase in leisure activities, different school and work patterns cause shared family meals to become a rarity and thus increase the demand for foods that can quickly and easily be prepared.

While discussing convenience with an industry stakeholder the comment was made that "NZ is an immature nation in the adoption of convenience meal sector (ready meals) at a retail level". It was stated that convenience of the product is viewed as important and the area is key focus of the business with development of value-add products seen as an area of significance to achieve this. An important comment was that fresh product competes really well as does frozen but NZ product can't compete in the value-add market (Wholesaler, pers.comms).

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When considering the positive attributes of NZ produced pork it is important to understand if NZ produced pork is available to consumers as a convenient product. Interviews with stakeholders revealed that they still sell a lot of bone-in product and pork is not as convenient as chicken but similar to other red meats (Wholesaler, pers.comms).

Figure 11. Perfect Pork Imagery   Source: Freshpork NZ

There are products out there such as Perfect Pork where a recipe is included with a semi-processed product but these products are rare and not available nationwide.

Some industry wholesalers have recently invested in the development and production of a pork kebab. This is a product that could certainly meets the convenience desire of a millennial consumer. It is also a product that is utilising the sirloin of the pig which is a cost effective and ready available cut that is produced in large volumes with the move towards the heavier pig. While this is a single product the key in the development of these convenient meal solutions is the search of NZ Pork's "Gold Kiwifruit".

The unrivalled convenience of the "cooked chook" is an example of the chicken industry identifying a convenient solution and perhaps some product development in an area like this could bring huge rewards.

Figure 12. Imagery of a Pork Kebab Source: NZ Pork

In the retail sector we can see the promotion of portion cut steaks vs whole primal with marketing lines such as "while it's hard to surrender control over the preparation of steak, it is hard to look past the many advantages of portion control". Using the attributes of convenience in the food retail space is defined as:

• Cost control – tighter control on plated costs as each steak is individually priced.

• Ease of use – just open and use.

• Labour savings – no in house prep is required.

• Inventory – easy to count the number of portions used or on hand.

• Consistency – the same every time.

• Ageing – you can control your own ageing.

• Waste – no left over pieces or trimmings (Bidvest, 2016)

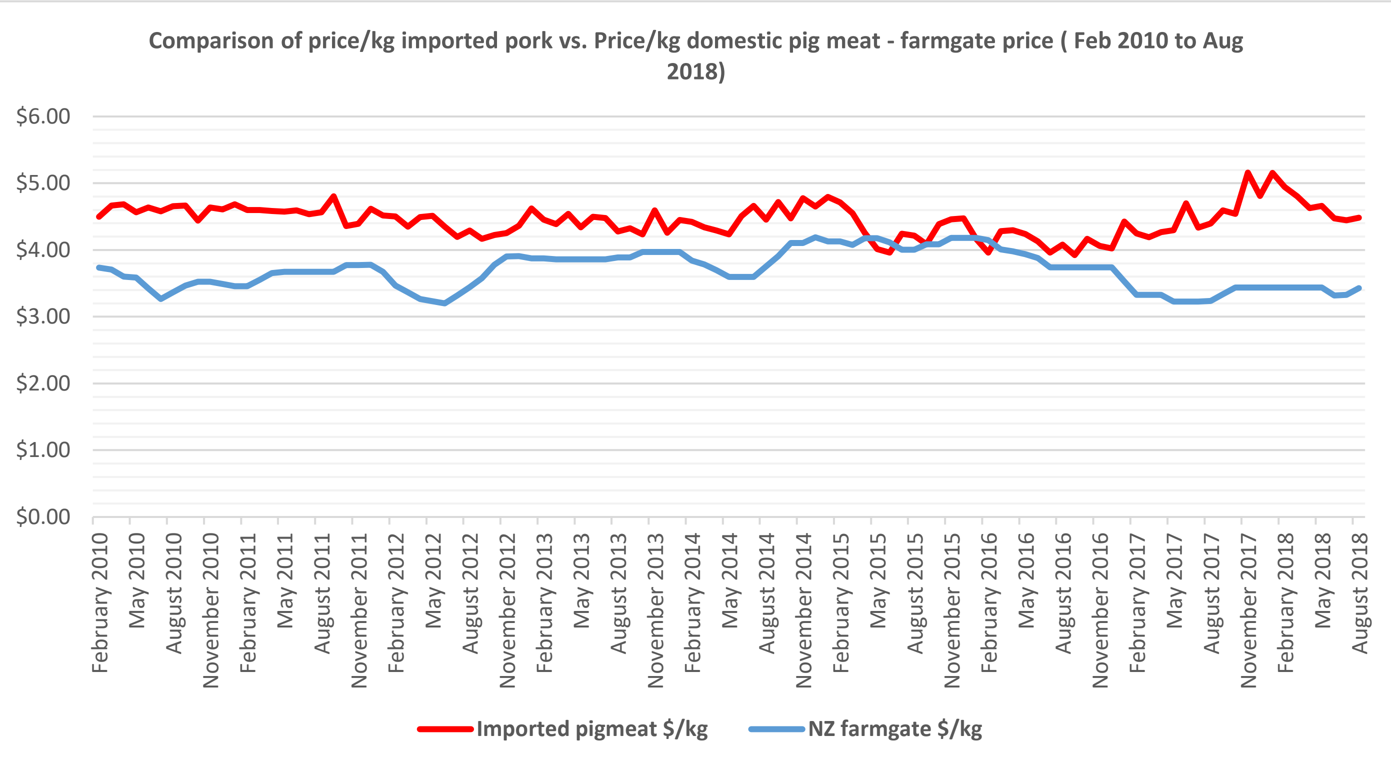
These points may be obvious but many people look past the higher price per kilo for the portion controlled product. There are several factors to be considered such as yield loss from trimming, off-cuts, end pieces and 'out of weight' steaks, labour and overhead costs, time spent cutting meat could have been used doing other work and finally packaging such as vacuum bags, cartons, labels (Bidvest, 2016)

Increases in leisure activities, different school and work patterns cause shared family meals to become a rarity and thus increase the demand for foods that can quickly and easily be prepared

6.2 PRICE

While profitability of the pork producer is one of the most important factors of the pork industry the price of the imported pork product that competes against needs to be understood fully.

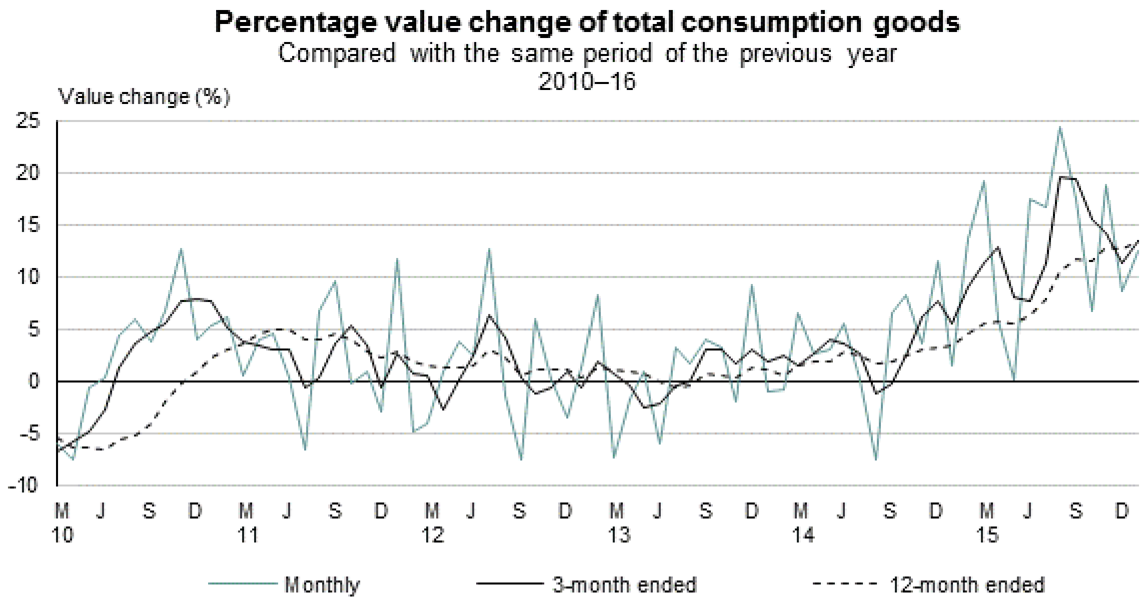
Figure 13. Comparison of Price/kg of Imported and Domestic Pig Meat from 2010-18 Source: Barugh and Newman



The graph above clearly demonstrates that Wholesale Imports are more expensive than NZ Pork at the farm gate per kilogram. It is important to note that the farm-gate price is not the wholesale price of NZ pork. The wholesale price of NZ pork is estimated to be significantly higher than the farm gate price. The importance with this graph is the trend of the increasing gap in the prices. The graph shows the difference in price is growing in a way that is making imports more expensive than they once were. There may come a point in time when these imports aren't the cheap alternative that they once were. Fluctuations in the $NZ, the Euro or $US would have a major bearing on the economics of the import purchase as would border constraints due to exotic disease incursion such as African Swine Flu or perhaps more importantly Foot and Mouth.

The price gap of $1 to $2 per kilo has become the new normal. With an average packet size of bacon at 250gm and some product differentiation by means of mandatory country of origin labelling it is unclear if a consumer choose imported product if the price difference was only between 25 and 50 cents per packet. This small amount may not be enough of a difference to move the vast majority in making the decision to choose import over domestic.

Figure 14. Percentage in Value Change of Total Consumption Goods 2010-16.   Source: Statistics NZ



The graph shows the value of imported goods increasing over time. Given that the total value of imported goods has increased this would suggest that imported goods are of a higher value. This information would suggest that there is real potential for the trend of imported consumption goods to continue and threaten the business model of our local manufacturers to keep using an imported over a domestic product.

Changes in the New Zealand dollar prices of imports, whether through changes in the foreign prices or movements in the exchange rate, affect the aggregate price level in New Zealand (Reserve Bank, 2016) Changes in the price of imports relative to the price of domestic output in turn can affect the spending decisions of households (Reserve Bank, 2016).

The exchange rate will always have a significant bearing on the competitiveness of imports while that threat can be mitigated, essentially it will always remain

The exchange rate will always have a significant bearing on the competitiveness of imports, this will be a threat to the success of the business that uses imported product. There is a number of ways that threat can be mitigated but essentially the threat will always remain.

The reality is that for most consumers around the world, the most important attribute remains price and for many cheaper is better (Proudfoot, 2018). While people love engaging stories, there is limited evidence that the average consumer is prepared to pay enough of a premium to justify the cost associated with delivering premium attributes (Proudfoot, 2018). It is particularly important to note that market niches where consumers are prepared to look beyond price are limited making market selection more critical than ever (Proudfoot, 2018).

Figure 15 is the continued reality of price and consumption of protein in NZ. The NZ population is highly price sensitive and is making purchases based on affordability. Pork is competing well in terms of consumption but this does represent total consumption. NZ has a population of varying socio-economic status and the reality is that for many households the ability to make ends meet is still a struggle. Pork produced in NZ has the ability to offer an affordable meal solution to any family when compared to other proteins. The high consumption percentage of chicken and pork reflect its importance in affordability.

Figure 15. Comparison in Price and Consumption of NZ Proteins   Source: Beef + Lamb NZ, PIANZ, NZPIB

PROTEIN TYPE	Farm Gate Price ($/kg)	Consumption per Capita (kg)	Consumption %
BEEF	3.90	17.1	18%
LAMB	5.72	5.4	6%
PORK	3.15	23.6	25%
CHICKEN	unknown	47.1	50%

During the interviews with industry stakeholder around the price of imports it was commented that if we were to compete on price alone we would need to reduce our current farm gate schedule price by over a dollar a kilo and approximately $70 per carcase (Wholesaler, pers.comms). Imported product is around 30% cheaper than NZ produced pork (Butcher, pers.comms), this suggests that currently there is some price pressure on domestic supply from imported products. The fresh pork market is relatively solid with the strong suggestion from wholesalers and processors that the area most under pressure is the pork that goes into the hospitality and processed meat areas such as bacon and ham.

As an importer of pig meat and a nation dependant of free trade we will always be at the whim of the importer seeking cheap pig meat or unable to resist a deal when surpluses occur in other parts of the world. Similarly when we experience movement in exchange rates and this is clearly demonstrated by the statement from The Reserve Bank, 2016.

6.3 TRACEABILITY

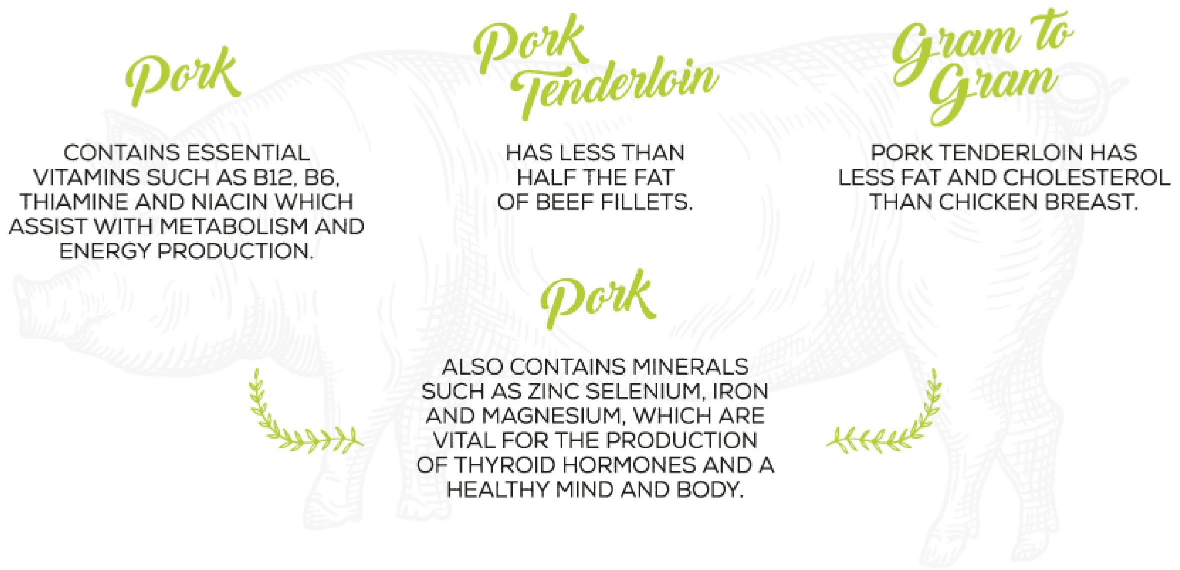
Do consumers want to know about where there food came from today and in the future? Is NZ pork able to follow the global trends of the truths of sustainability and animal welfare or is it provenance and quality? Questions during interviews around traceability and the use of technology and stakeholders stated that only 1% of our customers ask for Block chain and “yes we use Block chain but only for a relatively small number” others use internal software for traceability (Wholesaler, pers.comms). So clearly systems exist to be able to offer the consumer full traceability so that would indicate a high level of trust due to solid food safety records or perhaps a system that has not needed to be tested. The ability to offer full traceability exists and will be a solid foundation to enable future need.

6.4 QUALITY

Interviews with industry stakeholders sought to determine the quality of NZ produced pork and if it was considered to be similar, inferior or superior in quality to that of imports. Consistent comments followed a strong theme of similar in quality (Wholesalers & butchers, pers.comms). It was revealed however that imported pork can be bought to specification which is an interesting point that reflects a desire to maintain quality (Butcher, pers.comms).

When quality is considered it is important to note it is referring to the eating quality of pork. The nutritional attributes of pork is an area of current underutilisation in any marketing strategy.

Figure 16. Nutritional Attributes of Pork Source: Freshpork NZ



The nutritional attributes of pork is an area of current underutilisation in any marketing strategy.

6.5 ANIMAL WELFARE

NZ Pork producers have the PigCare accreditation scheme which is an independently audited scheme that assesses all the key areas around welfare and has more recently included presentation scores. The PigCare scheme that has built a solid reputation amongst wholesalers, retailers and consumers with recent research consolidating this a strong underpinning foundation to the strength and reputability of the Born and Raised New Zealand brand (Neilson, 2014). This is scheme is adopted by the vast majority of producers. The success of the PigCare scheme has seen its inclusion into NZ Pork's Born and Raised in New Zealand Trustmark.

Figure 17. Born and Raised in New Zealand Trustmark with inclusion of PigCare. Source: NZ Pork

Pressure from activists in 2015 was hugely influential and approx. 150,000 submissions were made to the NZ government and as a result NZ banned the use of the gestation stall. Pressure still exists from activists around the use of the farrowing crate with a SAFE petition around there use currently being considered by the Primary Select Committee. The use of the farrowing crate and possible alternative is a global problem for indoor pig farming systems. Countless years of research and trials are yet to find a solution to the problem of a welfare solution for both sow and piglet with alternatives to farrowing crates developed to improve sow welfare. These alternative farrowing systems have been designed to provide more space, allowing sows greater freedom of movement during lactation (Chidgey et al. 2016). The farrowing crate offers the best protection and survival rates of any system but the compromise is the restricted environment in which the sow lives in for up to 4 weeks during lactation. Pen-based alternatives to farrowing crates have been researched for decades, in an effort to improve the welfare of farrowing and lactating sows. However, high piglet mortality, and a lack of commercially-relevant studies, has been a barrier to the acceptance of these systems in the pork industry (Chidgey et al. 2016). If the farrowing crate were to be banned this would further exacerbate the ability for NZ pork producers to compete. Domestic pork production would fall by perhaps as many as 50,000 pigs with the increase in piglet mortality. It is highly likely the situation that was seen with the sow crate ban would be replicated with increases in imported pork produced from farrowing crates, as consumers continue to purchase affordable protein.

Brands such as Freedom Farms, Heller's Free Farmed and Kiwi Bacon Free Farmed use other audit schemes to offer a point of difference around welfare to their customers and use:

Freedom Farms "only buying food we feel right about". "NO sow crates, NO farrowing crates and NO concrete fattening pens."

Heller's Free Farmed "products are sourced from selected New Zealand farms and are guaranteed hormone-free and antibiotic-free, just the way nature intended." "The Free Farmed range is sourced from selected New Zealand farms." "No hormones are used and regular independent animal welfare audits are carried out."

Kiwi Bacon Free Farmed refers to sows being farmed outdoors in paddocks with shelter provided to protect them from the elements, as well as huts for breeding. “The sows can move from their shelters to the paddock freely.” “Most importantly, there are no sow stalls or crates to be seen.”

It has been identified that our purchaser is the female household shopper (Neilson, 2014) and research indicates the importance of animal welfare to NZ females with 19% difference in the concern of mistreatment between females and males and 66% of females compared to 47% of males were concerned about this (Colmar Brunton, 2017).

It is important to note that the countries that the majority of imports come from production systems that still use gestational stalls. This is a paradigm shift from why the New Zealand public and government insisted on the ban of gestational stalls.

In the study by S. A. Weaver and M. C. Morris it was stated that “often these disagreements come down to differences in epistemology (theory of knowledge and justified belief), and ultimately differences in values (Weaver and Morris, 2003).

One policy option to circumvent this problem would be the establishment of a labelling regime that required both the country of origin, and method of farming practice to be displayed on the retail product. This would give consumers the opportunity to make an informed purchasing choice (Weaver and Morris, 2003). Giving power to the consumers could be viewed as being hugely valuable.

In the same report Weaver and Morris quote a New Zealand public opinion poll published in December 2001 asked respondents the following question: “Do you think the practice of keeping pigs in sow stalls is acceptable or unacceptable?” Out of 500 respondents, 87% believed that sow stalls should be phased out by 2006 (RNZSPCA, 2001).

It is particularly interesting that a report largely based around animal welfare identifies economic strategies for the industry, identifying that a significant proportion of the existing and potential market is likely to respond positively to a marketing effort designed to encourage discerning consumers to choose welfare-friendly pork products, and would enable domestic product to compete with imports arising from sow stall operations (Weaver and Morris, 2003).

Some might argue that phasing out the sow stall in a country like New Zealand whilst still importing pork that has been produced using sow stalls would be unfair on New Zealand domestic producers who would have to meet higher and more costly welfare standards than their foreign competitors (Weaver and Morris, 2003). The Weaver and Morris report was published in 2003 and in 2018 we are clearly seeing the unfair playing field that is the domestic marketplace. The argument has been used in the forest industry against calls for higher standards of sustainability practice involving native timbers, under the premise that by doing so one would simply shift the geography of the problem rather than solving it. This would be true if there were no alternatives and if there were no international conventions capable of affecting the conduct of producers of internationally traded products (Weaver and Morris, 2003).

According to the European Commission, animal welfare stands at the crossroads of economic, ethical, animal health, food production, and legal issues (Weaver and Morris, 2003). The New Zealand government are only recently staring to address this while The EC propose a combination of actions to address this issue including the development of multilateral agreements, appropriate labelling rules, and making available transitional funding to assist the industry meet new animal welfare standards permissible under

WTO rules. (Weaver and Morris, 2003). As was stated in the communication from the European commission to The Council And The European Parliament on the welfare of intensively kept pigs in particularly [sic] taking into account the welfare of sows reared in varying degrees of confinement and in groups.

This report gives a clear reference to welfare being somewhere between knowledge and belief. Ultimately values will determine what constitutes good welfare. It is important to note that Country of origin and production system labelling are the key to underpinning the success of good animal welfare. Appropriate labelling gives the consumer the ability to make an informed choice that matches their personal values. It is important that when a government makes belief and value based decisions such as gestation stall bans that they underpin this with making sure their own producers have a level and fair playing field to compete on.

Greens MP Gareth Hughes has been particularly vocal in his view that cured meats should be included in the Bill and has voiced his support for the commercial industry. He told Radio New Zealand that as we've slowly ratcheted up our animal welfare standards in the pork industry, their sales have declined and we're seeing a massive increase in imports of really low-quality animal welfare pork. That's a double whammy for them. (Hughes, Radio NZ, 2017)

MP Gareth Hughes is the sponsor of the current Country of Origin Bill that has just passed its second reading before Parliament. He is a vegetarian and demonstrates that welfare is belief and values based.

Looking beyond the claims consumers make about the attributes they are seeking in products – versus understanding how they actually behave at the point of sale - is critical to cutting through complexity (MPI, 2017). The Honourable Minister O'Connor is quoted as saying "Consumers are increasingly buying products to align with their values and we must make the most of our natural advantages such as pasture-fed livestock, environmental sustainability and good animal welfare – and now more than ever is the time to tell that story."

For a producer it is hard to adapt to what is said from above and around when the reality of a consumers purchase decision is quite different. While open to change it is often difficult to have the confidence to make the change that is being demanded when the reality is a large percentage of our consumers continue to make a purchase of an imported product with a much lower animal welfare standard than NZ produced product.

6.6 SUSTAINABILTY

Sustainability is gaining momentum an important consideration of the modern consumer with 93% of NZers say they choose locally produced and grown products rather than imported ones, some, most or all of the time to be more sustainable. NZers have a high and growing (up 5% in last 12 months) commitment to a sustainable lifestyle. This has grown significantly in recent years (Colmar Brunton, 2017).

It a good point that just because a particular practice is economic but is irresponsible it shouldn't be deemed as acceptable. There may be pork producers who are still using the sow stall and who are unable to sustain their competitiveness in the industry if they are compelled to shift to farming practices that do not use the sow stall (i.e., go out of business) (Weaver and Morris, 2003). The inefficient producer who may go out of business because they must change based on other reasons than economical and the analogy of if a factory owner was unable to survive financially without the use of child or slave labour, then that factory owner should perhaps think of shifting to another industry or go out of business (Weaver and Morris, 2003). It is not the responsibility of governments to lower their standards of animal welfare or employment conditions for the sake of businesses that are inefficient and unable to behave in a fashion that the community regards as responsible (Weaver and Morris, 2003).

Sustainability is a combination of economic, environmental and the social licence to operate

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The NZ pork industry has always and will continue to make improvements when science deems a practice less than desirable. The industry has also been prominent in developing farm environment plans with emphasis on the use of Good Management Practice. This has been a great example of science, industry and regulators working in a collaborative manner to achieve for New Zealand. The pork industry is currently seeing pressure being applied around the use of farrowing crates. There is no proven sustainable alternative in use anywhere in the world despite considerable investment in research and development from some of the largest pig producing nations. It will be an area where the sustainability of the industry will come under extreme scrutiny.

Figure 18. Competitiveness in 2016. Source: R. Campbell, APL

Competitiveness in 2016

Country/KPI	Australia	NZ	USA	Canada	Denmark	Nederland's
COP	2.70	2.80	1.56	1.81	2.10	2.34
Feed ($/tonne)	365	485	256	314	328	370
Feed ($/kg CWT)	1.38	1.70	1.02	1.22	1.22	1.27
Other costs ($/kg CWT)	1.32	1.10	0.54	0.59	0.88	1.07
HFC	3.73	3.50	3.97	3.87	3.70	3.43
Pigs weaned/sow/y	23.9	26.2	25.7	23.2	32.1	29.8
Pigs sold/sow/y	22.8	25.3	23.4	21.9	30.8	28.4
Carcass weight (kg)	76.5	70.2	94.0	99.3	84.2	93.0
Carcass/sow/y (kg)	1687	1775	2202	2178	2531	2640
Wean-finish Morality (%)	4.4	3.5	9.02	5.5	6.4	4.8

The Competiveness in 2016 table from Roger Campbell shows New Zealand pork producer's world class competitiveness in terms of pigs weaned, mortality and feed conversion but the high feed cost results in the high cost of production. One area of consideration on how to drive down pork's cost of production must be investigate alternative feed sources. The pig is a monogastric and has an amazing ability to convert unusable feed such as sprouted grain into a palatable and valuable feed source.

There are a number of positive signs and increasing recognition in the sustainable behaviour patterns of NZers. Since 2014 the biggest movements in sustainable behaviour trends have been in the food sector with 7% increase in behaviour trends and in 2017 69% of all NZers and 75% of female NZers are willing to pay a bit more to get the best organic, sustainable and ethically produced products (Colmar Brunton, 2017). It is positive to identify an increase in the trend around behaviours based around sustainability.

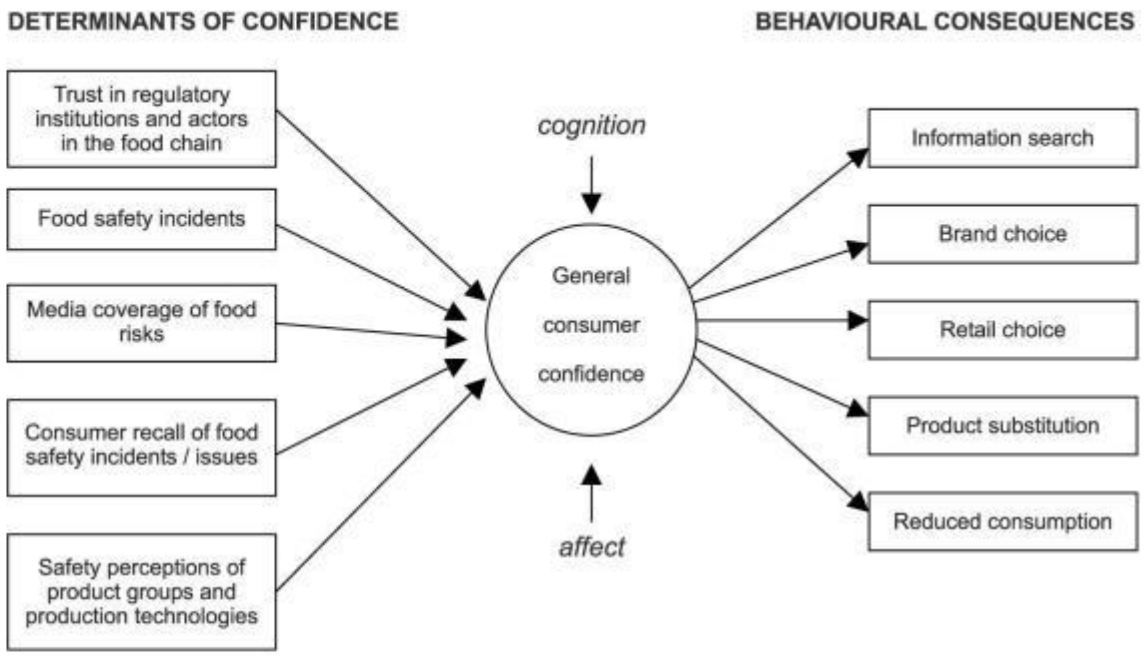
While positive trends exists around sustainability the increase in vegetarianism remains a concern with 7% increase has also been seen that NZers maintain a plant based vegetarian or vegan diet to a total of 27% (Colmar Brunton, 2017). So while the purchaser is becoming increasingly aware of the sustainability and has expectations around this, it could be leading to an increase in adverse behaviour patterns towards meat proteins with the increase in vegetarianism.

There is a real need to continue to maintain trust of the consumer and continue to maintain a Social Licence to Operate. With the increase in social media which is fast paced and largely non-evidence based there will be a continued challenge to make sure that while sensationalism will be short lived the educated and trusted NZ consumer will come back to the product that is trusted in their long term memory. Confidence is paramount with 83% of NZers stating they would stop buying a company's product if they heard about them being irresponsible or unethical (Colmar Brunton, 2017).

It is acknowledged that reductions in confidence may be due not only to specific scares or controversies, but also the erosion of cultural mechanisms that create and sustain confidence. Further research is required to understand the role of cultural factors influencing consumer confidence in food safety (Beardsworth and Keil, 1997).

The diagram in figure 18 shows how confidence is so intrinsically linked to the behaviour of the consumer. When we offer the consumer information to prove how they can be confident in our product then there is a high chance of a positive behaviour and ultimately a purchase choice based around the confidence they have in the product.

Figure 19. Diagram of Determinants of Confidence and Behavioural Consequences   Source: de Jong et al.



Notes: The central part of the monitor is general consumer confidence in food safety, which is likely to have both a cognitive and an affective dimension. The boxes at the left are the potential factors that affect consumer confidence in food safety and the boxes at the right represent the possible behavioural consequences of changes in general consumer confidence in food safety

Confidence is so intrinsically linked to the behaviour of the consumer

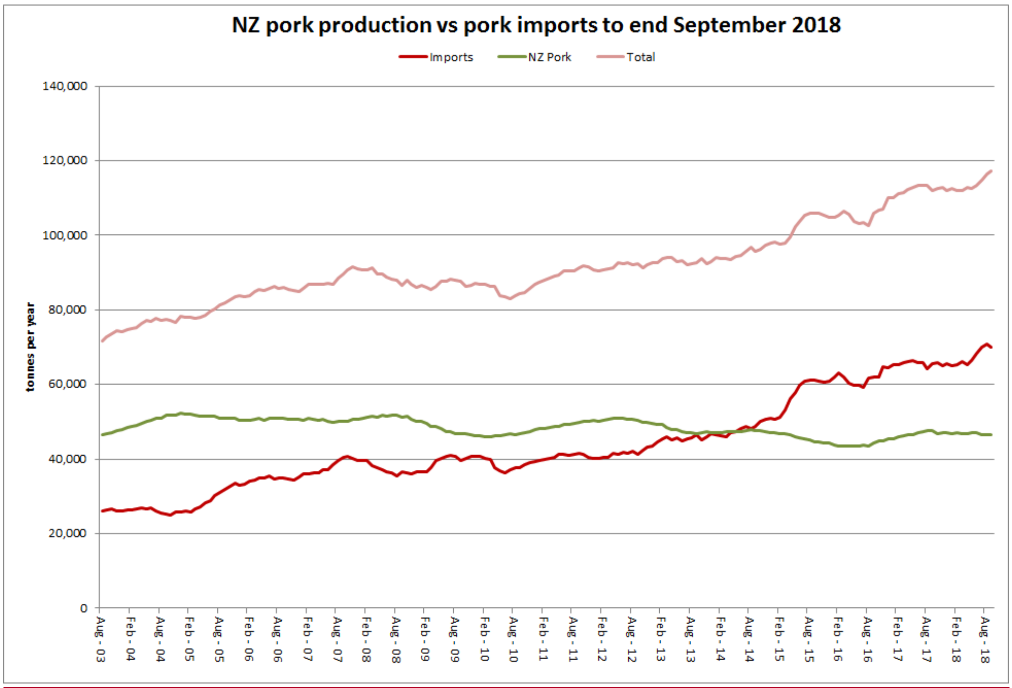
Country of origin labelling is one easiest ways to give New Zealanders confidence of knowing where their product comes from and New Zealanders have a strong desire to buy NZ (Hort NZ, 2017). Recent publicity from Horticulture NZ quote recent research from Consumer NZ about the NZ consumer's desire for the COL and the reasons behind their support submission on COL. Horticulture New Zealand reported 71% of New Zealanders want to know where their fresh, tinned, and frozen fruit and vegetables come from, and 70% also want to buy New Zealand-grown (Chapman, 2017).

Consumer NZ chief executive expressed that the results confirm strong public support for labelling adding the majority of consumers think it should be mandatory for fruit and veg retailers to display country of origin information (Chetwin, 2017).

An industry stakeholder clearly stated during the interviews "We don't need to compete we just need to differentiate" (Wholesaler, pers.comms).

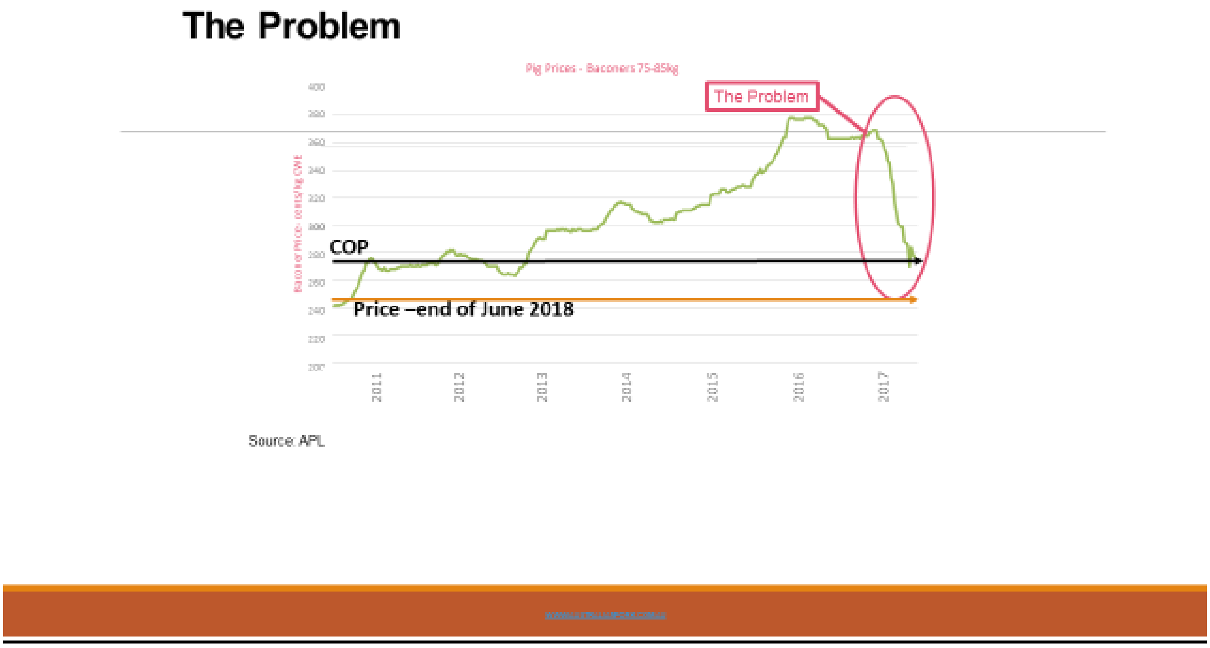
It is written in the 2017 NZPork submission on the Consumers' Right to Know (Country of Origin Labelling) Bill to the Primary Production Select Committee that at times consumers indicate they feel conned into eating imported brands of pork and pig meat due to being misled by claims such as "MADE IN NEW ZEALAND" from local and imported ingredients (Clement, 2017).

Figure 20. NZ Pork Production v's Pork Imports 2003-18 Source: Barugh



The graph in Figure 20 is the clear visual of NZ produced pork producer's problem of static production and imported pork volume increasing and the extent of how the problem continues to grow.

Figure 21. Australian Pig Prices 2011-17. Source: APL



An important consideration when the pork industry takes its opportunities is to avoid "The Problem" seen recently in Australia where over production without a secure market caused a huge fall in the farm gate price as demonstrated in Figure 21. Australia saw strong increase in farm gate price and productivity resulting is large unplanned production increases.

Figure 22. Pigs Weaned/Sow, Indoor v's Outdoor 2009-17. Source: Welch

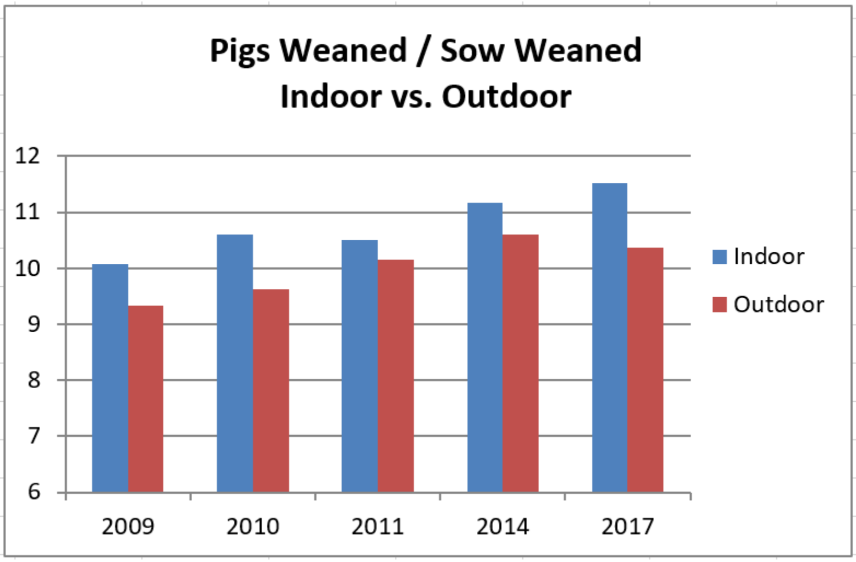
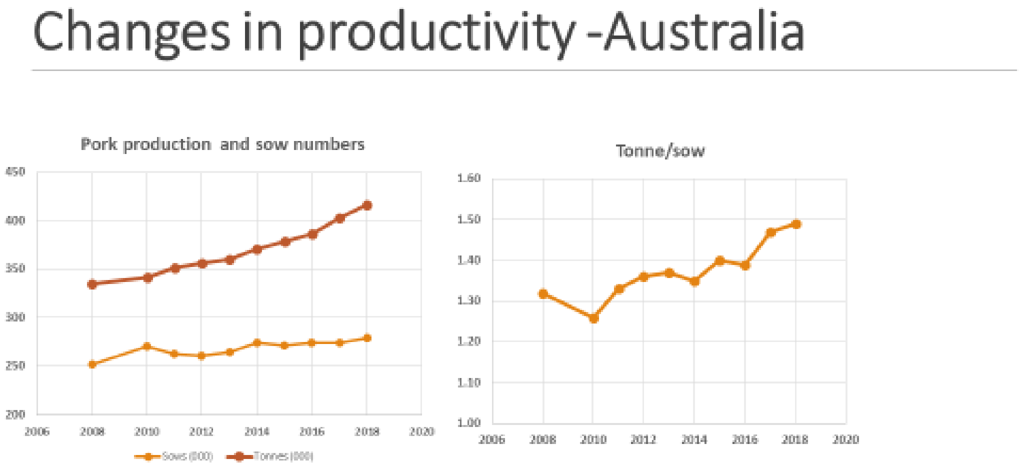


Figure 22's graph demonstrates the increased production both indoor and outdoor pork producers have made since 2009. It represents over a pig weaned per sow in extra production which is a significant improvement. The graph also highlights the difference of a pig weaned per sow between indoor and outdoor production systems. With around 50% of the pork industry using an outdoor production system there is potential coupled with production efficiency to look at ways to add 2 pigs weaned per sow in the next 8 years but this alone is not enough to maintain the pork required by a growing NZ population.

Figure: 23. Changes in Australian Pork Production Source: Campbell



In Figure 23 the two graphs represent increased productivity from a relatively static national sow herd. The Australian pork industry has bred a more prolific sow who needs more feed to support more progeny. It would seem to represent an efficient production system with more efficient sows. The New Zealand sow genetics are very similar to that of Australia and this graph would be similar to what has been seen domestically.

7. Discussion

In order for the NZ pork industry to solve this problem they need to consider the areas in the circle of control when they consider what action to take now, what they need to change and where production efficiencies can be made. Perhaps NZ produced pork is such a quality that it should export its premium product like the wine industry.

By filling the void in understanding with factual evidence during this project and understanding the strong reasons why consumers choose imports is an important first step. If the industry can understand the key drivers then effective strategies can be delivered at all levels to drive change. If it a change of perceptions, a change of production and a change of labelling that are the solutions. If a pork producer can understand who it is they are selling to and what they would like and why they would like it then we can produce, market and ultimately meet their needs. While producers are highly committed to produce a quality, safe and sustainable product they often forget to consider the purchaser. They need to understand the consumer then they can check that they have what they need and convince consumers that they have a superior product over the import. They can build on the confidence that exists in all New Zealanders about all things New Zealand. By New Zealand for New Zealand.

Competing with imports is not a problem we face alone, NZ milling wheat currently competes with Australian wheat and industry stakeholders have asked the question as should we "do we accept the imports or do we fight to compete?" Zespri saw very little increase in value of the kiwifruit until the development of the "Gold" kiwifruit 10 years ago. What will NZ pork producers "gold" look like?

There are risks for NZ manufacturers and consumers being heavily reliant on an imported product. Imported product may not always be cheap, there will be fluctuations in exchange rates and volumes. Biosecurity and border protection will become increasing important as NZ has seen first-hand the effects of PSA in kiwifruit and more recently Mycoplasma Bovis in cattle. The biggest concern is not just the effect on the animals and plants these diseases can have but the effect on NZ's people. NZ's hugely important rural communities that become vulnerable with not only damage to their businesses but damage to their lives.

This study has found convenience of our pork products is really important. We need to consider if it ready to be consumed, does it need basic preparation (if so how long) and does it meet the convenience requirements of its purchaser. Consumers are busy with their lives, children and leisure time and have high expectations of every part of their daily routine including their food.

When considering price as a factor I believe that while import levels are so high NZ Pork prices will always be underpinned of the price of imported product. The risks for NZ of being heavily reliant on an imported product are that product won't always be available at a price that is deemed as cheap.

When quality is considered it is important to note the eating quality of pork. This is deemed to be an area of underutilisation in the marketing strategy.

It is my firm belief that a New Zealand consumer will nearly always choose a NZ product. As the Social Licence to Operate becomes more engrained in our society, we will see a NZ consumer who has a Social Obligation to purchase.

The solid Statistic NZ population forecasts could offer 3 few scenarios when seen alongside current pork production:

Figure 24. SCENARIO A - Forecast based on no increase of domestic production. Source: H. Andrews

YEAR	Population (million)	Total Pork Consumption (Kg/person)	Total Pork Consumption (Tonnes)	Total Imported Pork (tonnes)	Total Imported Pork (%)
Current	4.89	23.19	113	66,000	58.7
2020	5.14	23.19	119	72,000	60.5
2025	5.51	23.19	127	80,000	63.0

If we choose to do nothing the above scenario is the reality with a 90% probability. Statistics NZ data suggests the population in likely to be from Western Europe, a sector with a strong habit of pork consumption.

RESULT: A 5% increase in the total volume of imported product in the next 6 years.

Figure 25. SCENARIO B – CONTINUE WITH 41:59 SPLIT Source: H. Andrews

YEAR	Population (million)	Total Pork Consumption (Kg/person)	Total Pork Consumption (Tonnes)	Total Imported Pork (tonnes)	Total Imported Pork (%)	Total NZ Pork (tonnes)	Total NZ Pork (%)
Current	4.89	23.19	113,000	66,000	59.0	47,000	41.0
2020	5.14	23.19	119,000	70,325	59.0	48,790	41.0
2025	5.51	23.19	127,000	75,388	59.0	52,070	41.0

Source: H Andrews

To hold our existing position then we need as a minimum to increase our production by 10%.

With production efficiency similar to last 10 years the pork industry could achieve another pig weaned per sow. It appears a combination of production gains plus an increase in herd size be the solution. If outdoor producers where to utilise the farrowing crate there is some solid productivity gains to be made with the reduction in pre-weaning mortality alone.

RESULT: Increased productivity and increase in NZ sow herd

What would be the ideal size of the NZ Pork Industry? If we look at our closest neighbours Australia, who also compete with imports but have recently struggled with some high domestic production. Let's assume a conservative estimation of 70% domestic and 30% imports. In addition to that let's assume some negative pressure on consumption as vegetarianism and flexitarians continue to grow in popularity within our millennials.

Figure 26. SCENARIO C – AIM FOR 70:30 SPLIT Source: H. Andrews

YEAR	Population (million)	Total Pork Consumption (kg/person)	Total Pork Consumption (Tonnes)	Total Imported Pork (tonnes)	Total Imported Pork (%)	Total NZ Pork (tonnes)	Total NZ Pork (%)
Current	4.89	23.19	113,000	66,000	59	47,000	41
2020	5.14	23.0	118,000	35,400	30	82,600	70
2025	5.51	22.8	125,000	37,500	30	87,500	70

Source: H. Andrews

These calculations would require in 7 years:

- 86% increase in the total tonnes produced
- Annual production to increase by 570,000 pigs (71kg/hd)
- Sow herd to increase by 23,000 (assume 24.6 pigs/sow/yr)
- Current 100 producers increase by 380 sows each
- Increase producers by 92 (av.herd size 250)
- Herd size of 250 sows = 152 producers

RESULT: Increase in producers, increase in NZ sow herd, decrease in imported pork

8. CONCLUSION

NZ pork producers currently have the perfect storm, demand has increased, population has increased and there is a high probability of continued population growth. Currently they see the worst part of the storm and that is the lack of ability to meet demand and as result are seeing a continued growth in imports. It is naïve to assume that people will just pay more for NZ produced pork and in many ways that underestimates the consumer.

Processors and manufacturers have used clever marketing such as “NZ Butcher’s” to make the most of cheap inferior pork appear to meet the expectation of the consumer. It is important to understand the socio-economic profile of our consumers and how the NZ produced pork meets the needs of the differing profiles.

This report is not designed to answer any questions as to how NZ pork producers can get a greater economic return for their product. The NZ wine industry is a phase further on from us with strong volume and revenue increases but not on $/litre. They have identified strong correlation in reduced cost of production and quality. Their success lies in the identification of their price point “sweet spot” and by the fact that they won’t compete with cheap low quality product.

The imported pork competition does supply a convenient product to our manufacturers and hospitality sectors that can be ordered exactly to specification. NZ pork producers must find a way to compete on convenience. The Australian pork producers have recently developed 10 year supply contracts after their problem of huge oversupply.

The NZ pork industry has struggled in recent times to maintain biosecurity standards at the border and the relaxing of import health standards was seen in 2015. It is important to maintain a strong and relevant industry and scale of production will allow the voice of the industry to carry more significance and ensure that it stays relevant in the primary sector and the NZ economy.

The modelling scenarios A, B and C clearly show that doing nothing is not an option and the NZ Pork Industry will lose even more market share and become increasingly insignificant.

9. RECOMMENDATIONS

NZ producers need to look internally and externally at ways to increase production:

- Heavier carcase weights but need to develop cutting floors and product
- Increase national sow herd from current producers
- Increase number of producers
- Use of the farrowing crate in outdoor systems

Any increase will need to be matched by ability to process the slaughtered animal. Continuing to manage and improve the environmental footprint, welfare and sustainability to ensure we have a social licence to operate. It will be vital to recruit and support new industry entrants.

It is essential that NZ pork producers look at ways to work with our manufacturers to improve the convenience of NZ produced pork products. They must concentrate on carcase balance and the cuts of pork that aren’t as popular need to be developed into convenient products. Products that meet the expectations of our millennial consumers and fit into their busy lives. They will pay for the convenience as they value their time and will not compromise on their lifestyle expectations. In addition, education is needed around preparation and cooking of pork recognising that millennials live their busy fast paced lives and recipes must meet their need of convenience.

NZ pork producers must do this together as one industry. They must take their opportunities and because they haven't done so already it has become their biggest risk. They are the experts in their field and have the ability to provide the support to each other to identify the opportunities and act.

While this seems like a big task when looking at the numbers, they need to remember the part they are responsible for, the pig and its production. As an industry they have a traceable, quality, ethical and sustainable product all that is needed is to develop the convenience and the quantity. Industry investment is needed to research and development of "gold" products and partnering with the manufacturers to promote those convenient products that already exist. The quantity issue is by far the biggest task and this will be multi-faceted. NZ pork producers will need to look at succession and the growth potential of existing producers and then work hard to attract new industry entrants. These new entrants will bring the benefits of youth and diversity, giving the depth to be resilient tomorrow. It should never be underestimated the strengths a rural business brings to rural communities and in turn to all of New Zealand. It is the NZ pork producers who form part of their communities, they are the ones coaching local sports teams, providing raffle prizes, sitting on school Board of Trustees, providing jobs to our youth, taking part in water catchment groups, organising fundraisers….the list goes on. **By New Zealand, For New Zealand**

In conclusion NZ pork producers stand at a crossroads and they must decide if this time is defined as the sunset or the sunrise?

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