

SHAPING THE FUTURE OF NEW ZEALAND'S RED MEAT SECTOR

SUMMARY REPORT

NOVEMBER 2019







Summary

Global prices for beef and lamb are at record highs, and the short-medium term prospects for farmers, processors and the wider industry are strong. However, nothing in the sector stands still.

Within New Zealand, there is increasing focus on the environment, increased regulation, and challenges to the industry's social license to operate.

Outside New Zealand, the global population is growing, the climate changing, trade relationships evolving, and technological disruption is accelerating.

Farmers and industry partners have requested that B+LNZ take a lead in understanding future trends so that B+LNZ, farmers and the wider industry can be prepared and to ensure that strategy and investment decisions made today will position the industry for a successful future.

In response to this, Beef + Lamb New Zealand (B+LNZ) partnered with Kantar Singapore.

Working with key industry partners we identified seven priority areas for action to respond to these trends

1. Exporting a food culture—Continue the push towards value added food products tied to a unique New Zealand culture
2. Maximise co-products—Ensure we get the most possible value from co-products both to drive profitability and hedge against a rise in meat alternatives
3. Reframing sustainability—Take charge of the sustainability debate by defining our story and telling it more effectively
4. Driving transparency beyond traceability —Using the right tools to make sure our great products can evidence their “greatness”
5. Own new premium narratives—Continue to develop New Zealand's unique premium attributes and narrative and communicate it to consumers across global markets
6. Lead the health debate—Firmly establish our health credentials and engage with our health “tribes”
7. Set up systems for collaboration and innovation—To unlock the potential of the sector

This research will be used to inform B+LNZ's priorities in the coming years and explore with partners. It has already fed into another major project that B+LNZ is working on with processing companies aimed at identifying potential new pathways to market.



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Major trends which will shape New Zealand's red meat sector

1. PREMIUM DIVERSIFIED—

An explosion of different forms and narratives around what premium means

The values and beliefs that determine premium in beef and lamb are expected to radically diversify and become more individualised. The traditional characteristics of premium today are marbling and exotic provenance (e.g. Japanese Wagyu), which has been stable for some time.

This is expected to change significantly over the coming years with new market segments and many new views about what is premium developing, driven by increasing interest in how the animal was raised and environmental impacts; social considerations; and increasing fragmentation of diets.

New Zealand needs to find and foster relationships with the groups of people who are likely to attach a higher value to the unique attributes of New Zealand grown beef, lamb and derived co-products. New Zealand should also look to influence the global conversation around food to position the unique attributes of our products as the drivers of premiumness across more and more groups of people. B+LNZ is already undertaking social media monitoring in some of its key export markets to identify early signals around evolutions of premium.

EARLY SIGNALS



Re-evaluation of lamb flaps as a high value product

The use of lamb-flaps in traditional Chinese cooking has increased the price farmers receive for their animals by turning the offcut into a premium cut.

Lamb flaps (the ends of the ribs trimmed away when the butcher cuts racks and rib chops) were previously considered a cheap cut retailing for around US\$1.35 per kilogram in 2010. This has increased 84 percent to US\$5.84 per kilogram as of July 2018.

Source: www.nbr.co.nz/article/china%E2%80%99s-taste-hotpot-elevates-lamb-flaps-offcut-prime-cut-sending-prices-record-bd-155374

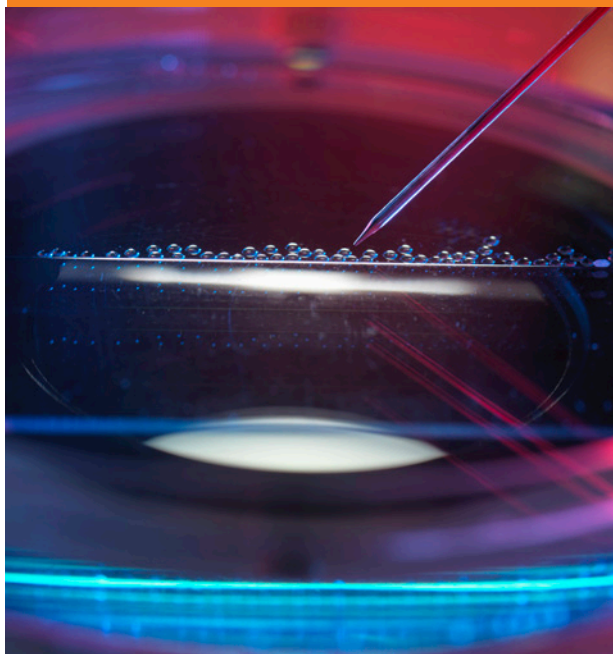
2. MY BODY MY SCIENCE—

The growth in alternative models of health, and explosion of health data

Western medicine's authority is expected to dissipate and belief systems such as traditional Chinese medicine (TCM) and Ayurveda will become seen as equally credible, alongside the growth in specialist diets akin to today's Ketogenic, and Paleo. In tandem, the ready availability of personalised health data generated through wearable tech will lead to highly individual health management regimes.

New Zealand needs to seek out and connect with individuals and these kinds of tribes (i.e. consumer segments) whose health regimes embrace and even require beef and lamb products with attributes that New Zealand delivers.

EARLY SIGNALS



90 Digital Wellness DNA Diet Plan

Subscribers to the plan can upload their genetic profile from AncestryDNA or 23andMe, and receive customised meal plans, grocery lists, recipes, and even exercise routines, based on more than 100 aspects of each individual's DNA.

Source: www.health.com/nutrition/dna-diet-plan

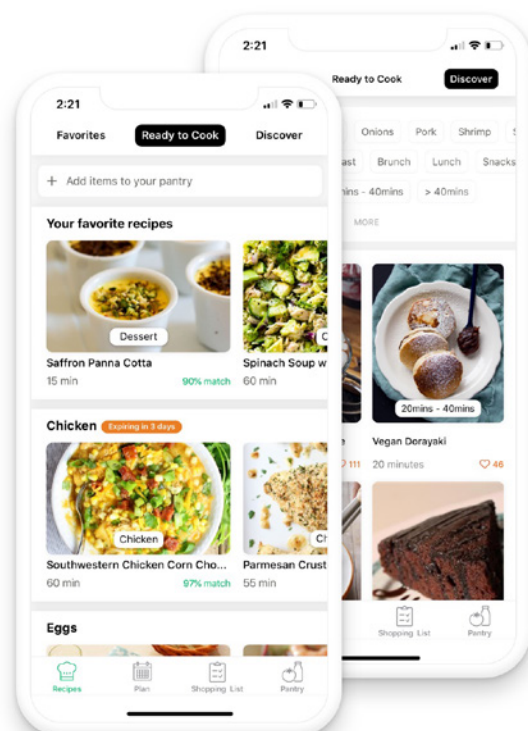
3. NEW AUTHORITIES OF CHOICE—

How tech and algorithms are disintermediating traditional business to consumer relationships

Increasingly, consumer's purchasing decisions are expected to be determined by algorithms and technology platforms/systems.

New Zealand's beef and sheep-meat industry needs to learn how to effectively partner with tech players and market to algorithms, in order to land its products in the shopping baskets of the future.

EARLY SIGNALS



AI-powered Kitchen Assistant

Chefling is an AI-powered kitchen assistant that monitors, organises and selects food, fully managing users' grocery needs. It helps users decide what to cook based on ingredients available in the pantry and fridge, and users' dietary preferences, and then automatically adds missing ingredients to online shopping lists for a seamless, hassle-free cooking experience.

Source: www.chefling.net

4. REDISCOVERING CONNECTIONS—

Reevaluating modernity and taking a greater interest in traditional practices

With growing awareness of health, environmental and ethical issues, consumers are increasingly scrutinising every aspect of how food is produced, and rejecting industrial food production.

The planet's growing population has required the rapid industrialisation of food production, resulting in food products that are commodified impersonal, and highly processed.

Drawing on both its remote location and expertise in regenerative agriculture, New Zealand's agricultural sector is in prime position to benefit from the pushback against industrialised food production. For example, concepts like “regenerative farming” are capturing consumers' imagination.

While the boundaries of regenerative farming are still being defined, fundamentally it incorporates practises that closely match New Zealand farming practices, such as:

1. Contribute to generating/building soils and soil fertility and health
2. Increasing water percolation, water retention, and clean and safe water runoff
3. Increasing biodiversity and ecosystem health and resiliency
4. Sequestering carbon in soil and aboveground biomass, reversing atmospheric accumulation of greenhouse gases.

In addition, incorporating the concept of Kaitiakitanga (guardianship or management of a resource such as land) can give the sector a unique position and an unassailable point of difference in the global food market.

EARLY SIGNALS



Reviving ancient techniques to secure the future of farming

Led by a group of scientists at the University of Grenada in Spain, Project MEMOLA uses cutting-edge technology to study and replicate long-forgotten irrigation systems and other farming techniques to tackle climate change.

Source: www.memolaproject.eu

5. STEWARDS OF TRUST—

The ongoing desire for “total transparency” in an increasingly low trust world

Across the world—especially in developing markets—people are losing trust in traditional food brands and retailers and there is growing demand for additional traceability. This trend is expected to continue as a result of food safety scares and corruption in some markets. Better and better traceability is something consumers will expect (a “hygiene” factor) rather than something you can get a premium for.

As many countries and companies are already investing heavily in traceability technology (including blockchain), it makes sense for New Zealand to adopt a fast-follower approach, moving beyond batch level level traceability to individual farm and all animal species.

EARLY SIGNALS



China's first fully traceable chickens

Using an app that links through to data collected from ankle bracelets worn by individual chickens, consumers can find out detailed information about the animal they're buying, including its age at slaughter, its daily step count and even its exact time of death. China's poultry industry has been hit with multiple contamination scandals, and this program brings an unprecedented level of transparency to the sector.

Source: www.qz.com/1158236/the-gogo-chicken-program-in-china-is-adding-poultry-to-the-blockchain-with-facial-recognition

6. RECHANNELING RESOURCES—

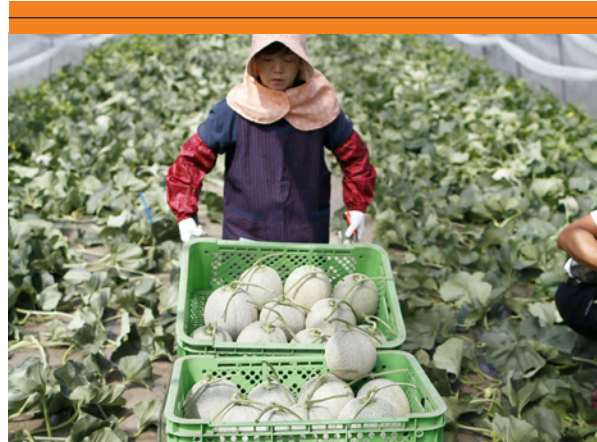
Rethinking the path to market for our scarce resources

The emergence of new business models (e.g. direct-to-consumer, crowd-farming), creates new pathways to market making it possible for producers and processors to have more direct links with retailers and end-consumers.

The path that meat products take from producers to end-consumers has always flowed through a succession of middlemen. In addition to capturing a large chunk of the value, these middlemen have mediated the flow of information from end-consumers to producers, impeding the ability of producers and processors to innovate at pace.

New Zealand's sheep and beef sector needs to get ahead of the business model innovations occurring in the industry globally, taking the lead in developing new value chains that allow it to capture more of the value inherent in its products.

EARLY SIGNALS



High-value fruits all year round

Cross-border cooperation makes high-end fruit available all year-round taking advantage of the countries' seasonal differences, Japan and Australia have partnered on growing and harvesting high-value fruits (e.g. melons) all year round. Farmers in one country can monitor farms in the other in real time, providing instructions to staff to ensure high quality standards.

Source: www.asia.nikkei.com/Economy/Japan-and-Australia-to-try-out-year-round-fruit-production

EMBRACING VUCA—

How the new normal—volatility, uncertainty, complexity and ambiguity—will shape everything

The production and distribution of food is expected to become increasingly volatile, uncertain, complex and ambiguous.

Disruptions are expected to occur more frequently, more severely, and across a broader range of environmental, political and technological factors.

Industry can adapt by building precautionary measures into the way they operate, but to thrive in the future, companies will need redundancies and contingency plans that make them resilient and able to benefit from shocks.

New Zealand's sheep and beef sector must leverage predictive analytics as a precautionary measure against hard-to-predict shocks to the food system while diversifying its product offerings, trading partners and routes-to-market, and have sufficient funding to combat potential bio-security threats exacerbated by global warming to quickly bounce back from any catastrophic shocks.

EARLY SIGNALS



Early signals—building urban resilience

The Netherlands has moved past the idea that defensive infrastructure like sea walls can withstand the forces of nature. It is designing resilience into its cityscapes by incorporating waterways that swell without impacting surrounding areas. To maximise the utility of these new urban elements, they are also actively marketed as recreation spots. All future urban design here will be based on the new normal of VUCA.

Source: www.nytimes.com/interactive/2017/06/15/world/europe/climate-change-rotterdam.html



Actions for the sector and wider New Zealand to address these trends

Based on these seven trends, and working with the wider sector we identified seven priority areas for the sector to look at. Under each priority is a summary of actions to take, broken down into responsibility.

ARTICULATING AND EXPORTING A FOOD CULTURE—





Continue the push away from commodity exports and towards food products tied to a unique New Zealand culture

Driven by the key macro trends, premium diversified and rediscovering connections, there is a need to deliberately and strategically articulate and then export a culture and story around food that's uniquely New Zealand's, to create a stronger position for New Zealand food that elevates the value of our ingredients and allows us to capture more value from branded red meat products.

New Zealand has excellent produce, reflective of the quality of our land and our farming techniques. We have stayed true to our values, growing food the way nature intended. However, there is a need to further develop and differentiate “Brand New Zealand” in the face of rising competition from other meat-producing countries, as well as new market entrants like cell-based meat companies. Our food is valuable because it reflects our unique culture and point-of-view around food.

How we do this

Key actions for the sector should focus on better linking of tourism with our growers and producers and further focus on defining and packaging the unique elements of our food story and culture. There is a critical role for Tourism NZ and the Government to play. B+LNZ has already formed a partnership with EatNZ to include our farmers within their food tourism “itinerary generator” to allow farmers to communicate this story directly to visitors. We will continue to evolve our red meat origin story, Taste Pure Nature, to include more cultural elements. The summary of all actions follows on the next page.

	Short-term: 1 year	Mid-term: 2–3 years	Long-term: 3–5 years
Goal	Coordinate across NZ food sectors to develop a unified food story	Use the NZ food story to move red meat products up the value chain	Build a broader national soft power (i.e. cultural influence) initiative rooted in NZ's food culture
Farmers 	<p>Create agritourism that showcases the unique characteristics and practice of NZ's beef and sheep farmers</p> <p>Exchange knowledge on agritourism best practices with other key NZ food sectors (kiwifruit, wine)</p> <p>Integrate tourism ventures within EatNZ food itinerary generator</p>	<p>Work with key NZ food sectors and the government to align on unique flavor profiles (e.g. regional appellations) that NZ can own and promote</p> <p>Package and export farmer culture/stories through popular media and entertainment channels</p>	Expand agritourism itineraries to include more aspects of NZ's broader soft power story
Meat exporters and marketers 	<p>Elevate marketing of NZ beef and lamb to highlight heirloom breeds and other unique attributes</p> <p>Form partnerships in distribution and exports with other key NZ food sectors, especially wine and kiwifruit, to form one strategic export food basket</p> <p>Link in with work underway to develop regional appellations for NZ beef and lamb</p>	Support farmers' effort in creating a uniquely NZ flavour in red meat through product development and marketing	Make NZ red meat brands iconic standard bearers of the country's soft power—for instance, the way Vegemite represents Australia
Government 	<p>Invest in sheep and beef agritourism</p> <p>Coordinate agritourism and marketing efforts among lamb, kiwifruit and wine farmers</p> <p>Appoint a Minister of Food who can advocate for the overall food industry</p>	<p>Collaborate with EATNZ to craft an all-encompassing narrative around NZ's food culture</p> <p>Work with key NZ food sectors to align on unique flavour profiles that NZ can own and promote</p> <p>Create a platform, forum or marketplace to showcase the NZ food story and culture (e.g. digital farmers' markets featuring the best of NZ produce)</p>	Put NZ's soft power on the national agenda and invest behind it, making sure that it is rooted in the food story previously built by the food sectors
B+LNZ 	<p>Identify prominent chefs and other spokespersons to represent NZ culinary culture internationally</p> <p>Set up food experiences to showcase NZ red meat alongside other key food exports, both domestically and in important export markets</p> <p>Coordinate with EatNZ to integrate existing farmer stories with their food itineraries and coordinate with open farms initiatives</p> <p>Scale up Taste Pure Nature in targeted markets to set the context for NZ grass-fed meat</p>	<p>Collaborate with global media and entertainment companies to showcase the NZ farm and/or food story</p> <p>Collaborate with a wider range of food sectors—manuka honey, mussels, fish, crayfish—to expand NZ's food story</p> <p>Develop a food tourism app in partnership with other interested bodies</p>	Develop content around red meat that takes advantage of the new touch points created by NZ's broader soft power initiatives

Examples of this in action

Coordinating across public and private sectors

In the last decade, the Korean government has spent tens of millions of dollars to promote Korean food globally, branded as “hansik”, as a way of improving Korea’s brand image abroad and bolstering outbound shipments of the country’s agriproducts. Initiatives include offering cooking classes at overseas cultural centres, appointing kimchi ambassadors, and a pan-government task-force to coordinate activities. Between 2012–2019, demand for, and inquiries around, Korean food rose significantly across multiple US cities.

Source: www.koreatimes.co.kr/www/biz/2017/04/367_227629

www.blog.yelp.com/2019/07/the-rise-of-korean-food-and-ramen-in-america



Crafting and celebrating the New Zealand food story

EATNZ are a New Zealand food movement dedicated to connecting people to NZ, through NZ food. As a collective of New Zealand’s chefs, producers, media, tourism and event operators, they have all been inspired to create a national platform to promote and champion our best food, drink, and culinary tourism opportunities.

They are working on increasing New Zealand’s unique culinary credentials by showing NZ’s food stories and people to the world, presenting NZ’s first national food celebration, and developing agritourism itineraries to better link NZ culture with its food.

Source: www.eatnewzealand.nz



MAXIMISE CO-PRODUCTS—

Ensure we get the most possible value from co-products both to drive profitability and hedge against rise in meat and co-product alternatives.

Driven by ongoing shifts in value perceptions identified in “Premium diversified”, producers are rechanneling resources in line with shifting demand dynamics and opportunities, all against a backdrop of increasing “VUCA”. There is a need to uncover new uses for each part of the animal, and redirect our supply globally to where demand commands the highest margins.

There is an opportunity to hedge against any potential decline in global red meat consumption by proactively diversifying and even re-calibrating the industry around co-products that might command higher margins. The challenge for processors is to go beyond responding to existing demand, to

understanding the drivers of demand, so that New Zealand becomes the first to identify new, financially lucrative uses for co-products.

How we do this

While we know there is opportunity to generate more value from co-products, it will take capital and co-operation to make this a reality. Work is already underway as part of B+LNZ’s Pathways to Market programme to identify opportunities for the sector to better co-ordinate its approach to co-products, especially around innovation and new product development. The summary of potential actions follows on the next page.

Examples of this in action

Extracting value from accidents of nature and nurture

Bovine gallstones develop as a rare medical condition in cows with specific issues between the heart and liver. Where they do occur, they are worth their weight in gold, fetching up to EUR 35,000 per kilo in places like China and Japan. In these markets, they are used in traditional treatments for hepatitis, liver and heart-related diseases.

Processors in Ireland have taken note, implementing special protocols to keep harvested gallstones in the best condition for export to the markets where they’re valued.




Source: www.independent.ie/business/farming/bovine-gallstones-are-worth-more-than-their-weight-in-gold-37877706

Creating uniqueness in the high-end leather market

Wholesale leather purchasers are increasingly demanding of the provenance of their leather products. Events like the recent, large-scale Amazon fires has resulted in import restrictions on animal products from Brazil. Alongside this, there is demand for more sustainable production e.g. chromium free leather. Products like vegan leather, once seen by some as a lower impact animal product-alternative, are being revaluated in light of pushback against plastic use.

The New Zealand Luxury Leather company have developed unique leather products—including merino lamb, farmed deer, and lamb shearling (skin from a recently shorn lamb)—to supply to some of the world’s pre-eminent fashion houses. They have combined New Zealand’s best in class farming practices with unique and innovative product development and are able to meet increasingly stringent supplier demands around animal welfare, sustainability, and traceability.

Source: www.nzluxurygroup.com/

	Short-term: 1 year	Mid-term: 2–3 years	Long-term: 3–5 years
Goal	Assess the evolving market landscape for co-products	Pioneer new business models to maximise returns from co-products	Create new markets for co-products through investment in basic and applied sciences
Meat exporters and marketers 	<p>Identify who's paying the most for individual co-products and by-products, and direct available supply to these buyers</p> <p>Change farmer reward for quality of co-products supplied, i.e. differentiate high vs. low value hides</p>	<p>Identify and create new business models or channels to sell new co-products, e.g. manufacturing raw material vs. processing to finished products to sell to end users</p>	<p>Kick off research into cell-based cultured co-products, paying particular attention to the impact that New Zealand's unique growing conditions have on the quality of 'starter cells'</p>
Government 	<p>Support partnerships within high value industries for co-products (e.g. medicine, bio-tech, pharma) where NZ has a distinct competitive advantage</p> <p>Identify where New Zealand has competitive advantage around specific co-products</p>	<p>Work with the sector to update regulations on animal-derived co-products, as well as their impact on sustainability, nutrition and biosecurity</p> <p>Ensure effective governance of co-product marketplaces and transactions</p>	<p>Update regulations on co-products to encompass cell-based cultured varieties</p>
B+LNZ 	<p>Identify bio-tech startups and link them with processors, setting up a process to continuously gather information about the emerging uses of co-products and by-products</p> <p>Establish partnerships within high value industries for co-products (e.g. medicine, bio-tech, pharma) where NZ has a distinct competitive advantage</p> <p>Identify geographic hotspots to export NZ-branded co-products</p> <p>Identify "size of prize" for co-products i.e. where is the most value available</p>	<p>Work with key industry stakeholders to create a co-product marketplace to efficiently match supply to demand at optimal prices</p>	<p>Establish B+LNZ and MIA as the authority on co-products by publishing thought leadership with case studies on new co-products and successful business models</p> <p>Work closely with scientists to develop animals and farming techniques that create new generations of co-products</p>



REFRAMING SUSTAINABILITY—

Take charge of the sustainability debate by defining our story and telling it more effectively

Driven by increased scrutiny outlined in “Stewards of trust”, alongside a need to have more sustainable production to ensure resilience in the face of “VUCA” we need to shift the global conversation around sustainability. Doing this will allow us to capture greater value from livestock agricultural production, model practices that are better for the planet, secure the social license to operate, and increase the profits we derive from our products. For example, there is a growing movement to highlight the benefits of “regenerative farming” with Amazon WholeFoods recently naming it their [number one trend](#) for 2020. Across the sector, many NZ farmers already practice elements of regenerative practice and as a sector have agreed to a world-first climate change commitment. There is an opportunity to both enhance our sustainable behavior, as well as better telling our sector sustainability narrative, turning it into a unique selling point for NZ red meat.

How we do this

While certainly there are actions around ensuring the sector is best-in-class around sustainable practice, there is a job to be done around better packaging of our story, and communicating it to the world. B+LNZ’s red meat country or origin brand Taste Pure Nature is underpinned by nationwide quality assurance programme designed to provide a platform of performance across all producers. As with co-products, a programme has launched, led by processors and supported by B+LNZ to address the most pressing aspects of sustainability relevant to the sector. The summary of all actions follows on the next page.

Examples of this in action

Climate-beneficial wool from carbon positive sheep





The North Face’s new line of beanies are made from wool that is produced in a way that allows farmers to sequester large amounts of carbon as they raise sheep. Within a year, Bare Ranch’s methods will sequester about 4,000 metric tons of CO₂, offsetting emissions from roughly 850 cars. While manufacturing with wool still has some environmental impact, there is potential in combining farming with more sustainable manufacturing—e.g. processing facilities that run on solar, wind and geothermal energy—to produce clothing with a net positive impact on the planet.

Source www.fastcompany.com/40493770/this-climate-beneficial-wool-hat-comes-from-carbon-positive-sheep

Sector collaboration to support sustainably produced beef

B+LNZ is among the founding participants of the New Zealand Roundtable for Sustainable Beef (NZRSB), which aims to produce the world’s most sustainable beef and better tell the story of New Zealand’s sustainable farming systems to the world. The NZRSB is committed to ensuring the beef sector is economically viable, socially responsible and environmentally sound. The New Zealand chapter is working with other countries on a range of programmes and initiatives to encourage and promote the production of sustainable beef.

Source: www.beeflambnz.com/news-views/blnz-welcomes-launch-nz-chapter-global-roundtable-sustainable-beef

	Short-term: 1 year	Mid-term: 2–3 years	Long-term: 3–5 years
Goal	Define and build a national sustainability standard	Promote NZ's sustainability standard for sustainability in agriculture	Further evolve this standard in light of evolving consumer demands
Farmers 	<p>Phase out farming practices that are inconsistent with the basics of sustainability</p> <p>Socialise knowledge of commercially viable sustainability practices</p> <p>Be able to convincingly talk about the sustainability benefits of chosen farming methods</p>	<p>Apply industry-agreed monitoring and measuring systems to individual company practices for full environmental impact transparency</p> <p>Collaborate with processors to develop carbon-neutral beef and lamb products</p>	<p>Provide proof points to show that NZ's sheep and beef sector has achieved full sustainable status as per national standards, so as to support the push to make these standards a global standard</p>
Meat exporters and marketers 	<p>Review packaging usage and other processing practices to align better with sustainability best practice</p> <p>Elevate a sustainable supply chain into an attribute that consumers will want to pay more for</p>	<p>Apply industry-agreed monitoring and measuring systems to individual company practices for full environmental impact transparency</p> <p>Collaborate with farmers to develop carbon-neutral beef and sheep-meat products</p>	<p>Provide proof points to show that NZ's sheep and beef sector has achieved full sustainable status as per national standards, so as to support the push to make these standards a global standard</p>
Government 	<p>Support development and delivery of environmental auditing systems which are effective, achievable, customer focused, and cost effective</p>	<p>In partnership, build a long-term vision and roadmap for sustainable food production practices</p> <p>Support evolution of environmental auditing systems to meet new standards</p> <p>Facilitate collaboration among primary industries to enable circularity</p>	<p>Incorporating learnings from its implementation in New Zealand, work with other countries to establish the NZ standard as the global standard for sustainable food production</p>
B+LNZ 	<p>Coordinate sharing sessions among red meat farmers and processors to understand the current challenges to sustainability</p> <p>In partnership with processors provide more visible verifiable assurances to consumers, for instance, by making information from the New Zealand Farm Assurance Programme (NZFAP) more easily accessible and available</p> <p>Explore consumer perceptions of sustainability and the attributes of sustainability that consumers would be willing to pay a premium for</p> <p>Investigate what the industry needs to do to be able to claim leadership in regenerative agriculture, and the potential benefits of making this claim</p>	<p>Use feedback from monitoring and measuring systems to establish ideal practices and benchmarks for the industry</p> <p>Create, test, and deploy a new sustainability narrative wherein beef and sheep farming has an active positive role</p>	<p>Leverage key opinion leaders to champion NZ's sustainable food production story on a global stage</p> <p>Partner with other sectors to promote an all-round NZ sustainability narrative on a global stage</p>

DRIVING TRANSPARENCY BEYOND TRACEABILITY—

Using the right tools to make sure our great products can evidence their ‘greatness’

Driven by the “Stewards of trust” trend highlighting future demands for greater transparency across the value chain, increasingly NZ will need technologies providing all-around transparency and traceability, not just food safety and freedom from disease. This will ensure we can better track our products from farmer to consumer and capture and communicate the traits which drive value. As competition intensifies in the realm of blockchain technology, it’s no longer necessary for New Zealand to be a first-mover in the field; by adopting a fast follower approach, the industry can realise the potential of these new traceability technologies at a much lower cost. Through this, New Zealand can fund both foundational work in getting the sector digital-ready, and development work exploring what else might be possible given the traceability technologies that are falling into place globally.

How we do this

Globally, we are expecting the rollout of a universal blockchain based traceability system. To prepare, we should focus on understanding what information is of value to our consumers, and design and standardise systems to collect this. Suggested actions for the sector to undertake are on the following page.



Examples of this in action

Ultra-efficient food trust networks





The IBM Food Trust platform is a blockchain-based food traceability platform, which has reduced the time needed to fully trace the source of a food product from seven days to just 2.2 seconds. This substantially reduces the likelihood that infected food will ever reach consumers. Carrefour, Walmart, Nestle, and Tyson Foods are already using the platform.

Source: www.techcrunch.com/2018/09/24/walmart-is-betting-on-the-blockchain-to-improve-food-safety

Doing more with less via traceability

Thanks in part to technologies that have allowed Dutch farmers to trace in real time the precise amounts of water and food needed by, and delivered to, individual plants and animals, the Netherlands has raised its national commitment to producing “twice as much food using half the resources”. Today, for instance, the total water footprint of tomato production in the Netherlands is 1.1 gallons (4.1 litres) per pound—far ahead of the 15.2 gallons (57 litres) in the US and the global average of 25.6 gallons (96 litres).

Source: www.nationalgeographic.com/magazine/2017/09/holland-agriculture-sustainable-farming/#close

	Short-term: 1 year	Mid-term: 2–3 years	Long-term: 3–5 years
Goal	Lay the ground work to allow the sector to adopt a universal traceability platform	Implement a unified traceability system leveraging the technologies that are gaining the most traction globally	Embed “trust” generated via unified traceability systems within NZ beef and lamb’s “brand”
Farmers 	Adopt and implement farm management systems that allow farmers to capture the data needed for full traceability	Use feedback gathered from consumers through implemented traceability systems to define and engineer new meat attributes that might capture greater value for the sector Pilot how collaboration around traceability would work between processors	Use traceability as an opportunity to develop farming into a consumer-facing brand, by communicating a unique selling proposition stemming from type of product or farming process
Meat exporters and marketers 	Identify minimally viable level of data sharing on processing practices that will assure consumers of traceability and safety	Use feedback gathered from consumers through implemented traceability systems to understand the meat attributes that matter the most, and which supply chain processes can deliver on them	Use traceability to develop and communicate new proof points around the impact of processing on freshness, nutrient content, and other desirable meat attributes
Government 	Identify opportunities to enable data sharing between farms and other industry bodies Identify pain points around existing digitalisation efforts (e.g. data entry, cost of investment, compliance) Identify existing blockchain/traceability technologies that are most likely to become global industry standards	Endorse and promote established traceability standard	
B+LNZ 	With partners, create a platform that farmers, processors and other interested parties can use to access agreed upon open-source data on farming and processing practices Demonstrate the financial value of tech transparency across the value chain (e.g. through reduction of friction and blockages) Identify what consumers want to know in terms of traceability (e.g. land use, animal production systems, supply chain)	Ensure NZ is a fast follower in the adoption of the world’s best traceability technologies Explore and facilitate new partnership opportunities with retailers, tech companies, etc. Cross-reference sales with traceability data to understand the attributes that highly correlate with sales and profitability, across farmers and processors	Identify spillover benefits from traceability that can be communicated to consumers as a reason to purchase or pay a premium for NZ beef and lamb—for instance, can we show that blockchain-certified Halal meat is also cleaner and more ethically processed? Ensure there is a common story being told about beef and lamb from NZ that still allows for individuality across processors and farmers

OWN NEW PREMIUM NARRATIVES—

Continue to develop New Zealand's unique premium attributes and narrative and communicate it to consumers across our global markets

Driven by macro trends around “Premium diversification” and “Reconnecting with tradition”, the sector needs to connect with people around the world who are willing to pay more for the unique intrinsic qualities of NZ beef and lamb so that we extract the most value from every animal we grow and process, as well as the NZ beef and lamb brand.

Marbling and provenance might have been the primary ways to command a premium in red meat in the past, but tomorrow there will no longer be one absolute “premium”. Rather, both the drivers and codes of premium will continue to fragment, driven by farmers, processors and retailers alike coming up with innovative ways to meet the increasingly diversified versions of premium.

How we do this

Much of the action need to focus on further defining our NZ version of premium, continuing to position ourselves as such, and communicating with all participants along the value chain what they need to do to deliver that premium. Suggested actions for the sector to undertake are on the following page.



Examples of this in action

Emotion sells better than composition—DeBeers

Over the past couple of decades, synthetic diamonds have gradually emerged as a cheaper and arguably more ethical alternative to traditionally mined diamonds. They have exactly the same physical characteristics and molecular structure as mined diamonds.





However, the emotional appeal created around traditionally mined diamonds by companies like De Beers remains strong, convincing people to pay significant price premiums for the real thing even in the face of the wide availability of synthetic diamonds. By introducing its own synthetic diamond line, De Beers has even gone a step further to actively define synthetic diamonds' role in the market vis-à-vis mined diamonds.

Source: www.forbes.com/sites/pamdanziger/2019/01/16/tiffanys-new-mined-diamond-policy-ignores-all-that-luxury-customers-want-a-man-made-alternative/#4e2fb91507a0

Omega 3 rich lamb—Te Mana Lamb

Te Mana Lamb is the product of the Omega Lamb Project and was launched in Hong Kong in 2017. Promoted as being the world's tastiest lamb, Te Mana has elevated levels of polyunsaturated and Omega-3 fats. Omega lambs are bred in the South Island hill and high country and brought down to graze selected chicory and chicory/red clover pastures. The superior eating qualities of Te Mana lamb are driving sales into top end restaurants in New Zealand and overseas. The purpose-built value chain, including ram breeders, lamb breeders, finishing graziers, a processor and a marketer is designed to deliver a superior product, and capture and share the value created. The project is a collaboration between High Health Alliance and the Ministry for Primary Industries.

Source: www.temanalamb.com

	Short-term: 1 year	Mid-term: 2–3 years	Long-term: 3–5 years
Goal	Identify the current and emerging opportunities for premiumisation via segmentation	Own the codes and signals for the new premium(s)	Identify emerging sources of value and invest behind new methods
Farmers 	<p>Define the KPIs for what premium means for farmers—higher selling price to processors? Higher price premium at retail?</p>	<p>Optimise farming processes to signal and communicate new premium attributes identified as important to different tribes</p>	<p>Trial new farming methods, tools and products that cater to new premium tribes and attributes that we do not currently own based on how premium definitions evolve</p>
Meat exporters and marketers 	<p>Review and align on KPIs for achieving premium within the organisation—do we target a price premium against meats from other countries, against other types of meat, or against competitive brands?</p> <p>Optimise existing farming processes to deliver on premium attributes</p> <p>Identify how to position NZ manufacturing beef as a premium product (given its share of carcass and threats from alternative proteins)</p>	<p>Innovate around packaging, treatment, flavourings, enhancements and other processes to signal what premium means to different tribes—e.g. freshness conveyed through packaging, no plastic packaging</p> <p>Utilise insights from social watching and other dynamic monitoring systems to identify tribes who represent the best market for existing brands and products</p>	<p>Re-position brands so they are better placed to appeal to emerging tribes with new definitions of premium</p>
Government 	<p>Incorporate New Zealand's red meat sector into tourism strategies, to help make NZ provenance a compelling driver of premium pricing for the sector</p> <p>Support opportunities for regional appellations for beef and lamb products</p>	<p>Support new certification standards for the new codes of premium, like Japan did with marbling standards and the codification of Wagyu</p>	<p>Set standards for the marketing of cellular meat, alternative proteins vs. real meat</p> <p>Create an expanded red meat portfolio, where alternative proteins drive scale and accessibility, and innovation in real meat drives differentiation</p>
B+LNZ 	<p>Establish a dynamic monitoring system—monitoring not just social conversation but innovation in adjacent categories—to identify emergent tribes who might place a premium on NZ red meat</p> <p>Move beyond the Conscious Foodie to find and understand the specific tribes who are prepared to pay a premium price for the unique attributes of NZ red meat</p> <p>Investigate how to use intangibles like the NZ food story to help add premium to the NZ red meat offer</p> <p>Explore positioning opportunities around natural, grass-fed mince</p> <p>Explore positioning opportunities around veal/bobby calves</p>	<p>Re-evaluate existing positioning for fit with new premium tribes</p> <p>Conduct research to understand the codes of the new premium across the different tribes</p> <p>Craft new angles and narratives for our offer that appeal to different tribes but that also ladder up to a unified NZ beef and lamb brand</p> <p>Identify the attributes and characteristics of real meat that cannot be replicated with alternative proteins</p>	<p>Partner with adjacent food sectors to exchange knowledge on new innovations in farming or processing that can command new premiums</p>

LEAD THE HEALTH DEBATE—

Firmly establish our health credentials and engage with our health tribes

In line with the “My Body, My Science” trend, there is a need to position New Zealand beef and lamb as a positive contributor to the wellbeing of select “health tribes” to ensure that New Zealand beef and lamb benefits from growing consumer interest in health and wellness generally, and activities like health data tracking specifically.

How we do this

Actions should focus on both telling our “health story” better and backing it up with concrete evidence. There is already work underway funded by B+LNZ, the Meat Industry Association and several processors to evidence the health benefits of NZ red meat—“The Pasture raised advantage”. Suggested actions for the sector to undertake are on the following page.



Examples of this in action

What’s bad for some is good for others

Bulletproof coffee (BPC), which has become all the rage in Silicon Valley, is a breakfast-replacement beverage that controversially contains butter and coconut oil—two ingredients not normally thought of as parts of a healthy diet.

Among BPC’s listed benefits are weight loss through hunger reduction, and boosting cognitive function. While some nutritionists have criticised BPC’s high saturated fat content, its low-carb/hi-fat composition fits perfectly with those following a ketogenic diet and for people with type-2 diabetes.





Source: www.medicalnewstoday.com/articles/323253.php

Proving the health benefits of Kiwifruit

Zespri spent over 10 years collecting data from clinical trials along with substantiated supporting evidence from other research to develop a health claim around bowel health and green kiwifruit. The health claims generated underpin Zespri’s marketing around the world as a premium brand, with evidence that the more consumers know about the health benefits of kiwifruit, the more likely they are to see kiwifruit as an important nutritious addition to the daily diet.

This has allowed Zespri to build on their base of loyal, regular consumers who value the digestive health benefits they get from eating kiwifruit.

Source: www.zesprikiwi.com/en-US/nutrition

	Short-term: 1 year	Mid-term: 2–3 years	Long-term: 3–5 years
Goal	Define and communicate the role of red meat in the health narrative; establish a way of identifying and connecting with emerging health tribes	Develop products and communication strategies which target specific health tribes	Create and stay ahead of future health and nutrition needs through innovation
Farmers 	<p>Continue alignment of farming practices with products which align with consumers health demands e.g. GMO free, GPH free, no antibiotics</p> <p>Grow supply of NZFAP animals</p>	<p>Capture value from healthier growing practices by ensuring consumer awareness through complete transparency of product input</p>	<p>Trial new farming methods, tools and products that cater to new health tribes and attributes that we do not currently own—e.g. additional nutritional benefits of red meat for the elderly</p>
Meat exporters and marketers 	<p>Invest in technology that monitors the integrity and other aspects of the processing journey that influence red meat's impact on people's health</p> <p>Review existing and new product lines to identify the most valuable health attributes to highlight in marketing</p> <p>Continued commercial development of health claims applicable to key markets</p>	<p>Build strong partnerships with data aggregators, to link industry data with relevant data from insurance companies, health apps and other health and nutrition related companies</p> <p>Prioritise health tribes to pursue, given existing product portfolio and innovation capabilities</p>	<p>Trial new products and processing techniques to create healthier versions of red meat—e.g. processing in a non-metal environment using high pressure air</p>
Government 	<p>Invest in research to prove the health benefits of red meat generally, and grass-fed beef and lamb specifically</p> <p>Facilitate collaboration with other industries (e.g. pharmaceuticals) to explore emerging health uses/benefits for red meat</p>	<p>Invest in research to begin exploring health attributes beyond grass-fed</p> <p>Continue dialogue between sector and government around nutritional benefits of beef and lamb</p>	<p>Facilitate regular exchange of nutritional knowledge among primary industries in NZ, as well as with medical/scientific researchers, and other red meat sectors globally</p>
B+LNZ 	<p>Segment existing consumers to identify health tribes and existing health concerns</p> <p>Optimise the health narrative within 'Taste Pure Nature'</p> <p>Enhance understanding of health positioning in China and demands which meet our product proposition e.g. demand for iron, zinc etc.</p> <p>Identify sources of value which could be generated by identifying health benefits of beef and lamb products</p>	<p>Establish a dynamic monitoring system—incorporating regular social watching/ listening—to understand emerging health tribes (e.g. rapidly ageing populations)</p> <p>Identify and partner with ambassadors for NZ red meat who can champion its health benefits among specific tribes</p>	<p>Create, test and roll out new health narratives that compellingly demonstrate how NZ beef and lamb can improve the health of selected health tribes</p> <p>Investigate potential for animal health and wellbeing monitoring to support ethical license to continue animal consumption</p>

SET UP SYSTEMS FOR COLLABORATION AND INNOVATION—

To unlock the potential of the sector

In line with “Macro trends of rechanneling resources” and to tackle the challenge of embracing “VUCA” there is a need to unite and mobilise the right teams across the sector to work towards industry advancing innovations. This will allow us to pre-emptively pursue and effectively unlock any future opportunities we identify. With the right systems to support information flow and the frameworks to enhance collaboration, we can capture the potential of the other six innovation pathways.

How we do this

While there is a broad range of activity already happening across the sector—in part driven by regulatory change around the environment—there is certainly opportunity and value in greater co-

operation. One example is around industry working on a long-term solution to managing bobby calves across the sector which is part of the wider “Pathways to Market” programme of cross-sector collaboration. Suggested actions for the sector to undertake are on the following page.



Examples of this in action

Incubating change within NZ's Rural Innovation Lab

The Rural Innovation Lab launched in February 2019 is designed to support farmers and growers to innovate around existing farming systems and precipitate change to ensure the sector's success. Since launch it has engaged with more than 150 farmers, growers, and Maori landowners to identify the key challenges they face and develop solutions/support ventures.

Ventures to date include: WombatNET focused on developing affordable rural broadband to ensure high speed internet access; an online sharing platform to enable farm machinery owners to list their items digitally; and support for a Maori agribusiness collective which plans to build a central database of landowners detailing land demographics, future aspirations, challenges, and succession constraints.

Source: www.ruralilab.net.nz





Breaking organisational silos through cross-functional, cross-disciplinary teams

Chinese brand Haier has been the world's largest white goods manufacturer for nine years. In 2013, Haier restructured into self-managed teams that catapulted them into the ranks of the world's most innovative companies.

Marketing, design and manufacturing worked in small teams brought together for a specific mission, with P&L responsibility. This bottom-up, cross-functional structure allowed teams to quickly act on any consumer insight, effectively eliminating any time delays between insight and innovation.

In 2014, Haier restructured again to institute digital platforms that allow cross-functional teams to crowdsource for solutions among consumers and outside innovators.

Source: www.strategy-business.com/article/00323?gko=c8c2a

	Short-term: 1 year	Mid-term: 2–3 years	Long-term: 3–5 years
Goal	Pilot cross-functional, cross-disciplinary teams across the red meat sector	Scale up collaboration through cross-functional teams	Leverage the industry's ability to collaborate effectively to create contingencies against future uncertainties
Farmers 	Elect farmer representatives to participate in pilot cross-sector teams to represent farmers' interests and to shape how farmers participate in future industry efforts	Explore ways of improving the speed and efficiency of communications, both among farmers, and between the national community of farmers and the rest of the industry	Support industry-wide initiatives to prepare for future uncertainties that would impact NZ's red meat sector
Meat exporters and marketers 	<p>Elect representatives to participate in pilot cross-sector teams set up to represent processors' interests and to shape how processors participate in future industry efforts</p> <p>Ensure clear lines of communication between the pilot cross-sector team and all processors via elected processor representatives</p>	<p>Share research and innovation pipelines with other stakeholders where there is clear mutual benefit</p> <p>Form partnerships with tech companies to gain access to additional data sets that can help drive effective innovation</p> <p>Connect R&D departments to other sectors or markets to capture best practices that can and should be adopted</p>	Hedge against future risk by establishing contingencies in supply chain that ensure more consistent supply to match demand year-round where the impact of increased VUCA has potential to disrupt this
Government 	Elect government representatives to participate in pilot cross-sector teams to assist with any legal or regulatory questions	Facilitate knowledge transfer, and learning of best-in-class global innovations and new technologies, through the organisation of international learning forums or trade fairs	Share any case studies on scenario planning from other sectors at risk from disruption e.g. forestry and fishery
	<p>Facilitate the formation of cross-sector task forces, establishing rules of engagement and clearly defining roles and responsibilities for all players</p> <p>Utilise "Taste Pure Nature" as a framework for innovation and collaboration (where it is relevant and adds value)</p> <p>Work toward enabling at scale opportunities identified in the other six action areas</p>	<p>Explore formation of multiple cross-sector teams, each focused on one key opportunity area to pursue in the mid-term</p> <p>Facilitate partnerships between industry players and relevant start-ups to get closer to sources of innovation and change</p>	<p>Re-think industry structure to more efficiently unlock long-term opportunities, for example, in food culture and premiumisation</p> <p>Define mechanism for compliance to best practices across all players in the sector</p> <p>Set up framework to identify future uncertainties across environmental, political, economic, social and technological factors, and monitoring systems to determine when to act/react</p> <p>Define roles and responsibilities across stakeholders in all contingency plans</p>



How we generated the trends and priority areas within this document

This work comprised of four stages

1. TREND GENERATION

Kantar undertook an initial deep dive looking at the range of trends on the horizon, before narrowing them down to those with the most likelihood to impact the role of meat in the future. Inputs included interviews with experts and cultural trend spotters. Expert interviews included the CEO and co-founder of Shiok Meats (who produce cellbased seafood in Singapore), BeefLedger, who are developing a blockchain solution for Australian beef, the Business Development Manager at Wageningen University, the world's leader for plant-based protein research. In addition, they spoke to cultural trend-spotters in the USA, UK, Italy, the UAE, China, South Korea and South Africa around food, retail, demographic, cultural, economic, and political trends with relevance to the sector.



2. TREND SYNTHESIS

Representatives from Beef + Lamb New Zealand worked with Kantar to filter down the information trends identified in the previous stage into the most sector relevant trend areas. From a starting point of 25, a total of seven macro trend areas with the most potential relevance to the sector were identified.



3. IDENTIFYING PRIORITY ACTIONS

Held over two days, the trends were workshopped with representatives from Beef + Lamb New Zealand, NZ sheep and beef farmers, processing companies, wider industry, the science community, and government. On day one, attendees explored the trends and case studies. On day two, attendees identified potential actions and priorities to position the sector to respond to, or capitalise on, those trends.



4. DEVELOPING A “NOW WHAT”

Kantar and Beef + Lamb New Zealand took the outputs from the workshop and shaped these into concrete recommendations on short, mid, and long-term timelines, identifying those best placed to take the recommendations forward.





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KANTAR

B+LNZ and Kantar collaboration

This work was a collaboration between B+LNZ Ltd. and Kantar's Singapore-based Consulting Division. The world's leading marketing data, insight and consultancy company, Kantar works with over half of the Fortune 500 across 100 countries. Kantar's Consulting Division are experts in gathering insight into consumers, shoppers, channels and retailers across categories and markets. Their areas of specialisation include trends and futures, innovation, segmentation, ecommerce and retail strategy, brand development, organisational development, and commercial strategy.

This report is made possible by sheep and beef farmer investment in the industry. Beef + Lamb New Zealand is not liable for any damage suffered as a result of reliance on the information contained in this document. Any reproduction is welcome provided you acknowledge Beef + Lamb New Zealand as the source.

A close-up photograph of a person's hands holding a white ceramic bowl. The bowl is filled with cooked meat, possibly lamb chops or ribs, garnished with fresh green herbs. The person is wearing a red and white checkered shirt. The background is blurred, showing a kitchen setting.

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