UK INDUSTRY JOINT REPORT ON:

NEW ZEALAND

RED MEAT SUPPLY CHAIN INTEGRITY PROGRAMME

12–17 MARCH 2018

Table of Contents

EXECUTIVE SUMMARY

Representatives of the UK red meat sector, alongside Government colleagues, visited New Zealand between 12 and 17 March 2018 to better understand New Zealand's (NZ) farming systems, regulatory framework, industry supply chain and the associated processes and programmes deployed to support an effective and sustainable presence in international red meat markets.

The NZ red meat sector is an export focused and market driven industry, which services 120 markets around the world based on market and product diversification, quality, and on-going research and development. Over 90% of its red meat production goes to export. This focus on international sales was forced by the change from an economy that in the early 1980s was based upon significant intervention in the agricultural sector to one that had virtually no government support and a risk and outcome based regulatory system. The market is left to decide who flourishes and the regulatory framework provides the necessary flexibility for operators to determine within legislative boundaries how regulatory outcomes are delivered.

All the players in the supply chain from farmers through to the processors and up into Government showed understanding of their role in maintaining New Zealand's reputation, on building 'Brand New Zealand' even. There is a Strategic Directions Group consisting of senior industry representatives and senior government officials that meets regularly to discuss market access and how to mitigate anything that may be hindering it. The main industry bodies Beef and Lamb New Zealand raises an industry levy and focuses its work on government and public insight and engagement, unlocking market intelligence, and enhancing the environment. Its market access work includes promoting product overseas, removing barriers to trade, increasing the number of NZ FTAs. Similarly, although it does not raise a levy, the Meat Industry Association has a multi-functional role, including lobbying and policy work, interfacing between Government and industry, facilitating whole industry projects, and working on immigration policies to target labour shortages (particularly around halal slaughtermen).

Exports are essential to the survival of the NZ red meat industry, but supplying 120 different markets makes it impossible for New Zealand farmers and processors to follow individual market access requirements. The focus of NZ Government in market access discussions and in international fora is on seeking acceptance of 'equivalence', that their regulatory standards produce safe food, that there is no 'safer food'. The need to protect the reputation of NZ's red meat industry and to give their industry opportunities to compete in the global markets means that regulation is imposed on a risk and outcome basis rather than prescriptively. Understanding the importance of reputation to being able to access those 120 markets means both farmers and processors have high levels of compliance as they are able to seek out innovative and market-oriented ways of complying with that regulation.

INTRODUCTION

Representatives of the UK red meat sector, alongside Government colleagues, visited New Zealand between 12 and 17 March 2018 to better understand New Zealand's farming systems, regulatory framework, industry supply chain and the associated processes and programmes deployed to support an effective and sustainable presence in international red meat markets. This report has been developed jointly by UK red meat industry representatives in order to share our thoughts, notes and learnings from the visit.

The NZ Red Meat Supply Chain Integrity Programme (the programme) facilitated an exchange of knowledge between industry and government, enhanced relationships, and identified areas of common interest where collaboration could help us address shared challenges.

These shared challenges are currently being handled in entirely different ways which reflect both the culture, but more importantly the need, to demonstrate the highest levels of food security and safety by differing markets.

Understanding the direction of travel in modifying current processes will be key to a strong and proactive relationship in matters such as:

- Livestock traceability
- Animal welfare
- Food safety
- Environment
- Farm assurance
- Government interaction and communication
- Halal slaughter process

The UK delegation included representatives from industry bodies, producers, processors, the devolved administrations (Wales, Northern Ireland and Scotland), and central UK government officials.

The programme was prepared by the Ministry for Primary Industries (MPI), Beef+Lamb New Zealand (B+LNZ) and the Meat Industry Association (MIA), the Ministry of Foreign Affairs and Trade (MFAT), and the British High Commission in New Zealand.

The programme involved a series of workshops, farm visits, tours of processing plants and meetings with key industry representatives across the red meat sector including researchers, industry leaders and farmers. The visit showcased New Zealand's grass-fed farm systems and highlighted some of the practices that allow New Zealand farmers to address environmental challenges and position their sheep and beef products as high quality premium products to consumers at home and around the world.

THE PROGRAMME OBJECTIVES

- An understanding of key New Zealand policies that have enabled and assisted our primary sectors (such as our approach to environmental, competition and investment policies, education/training and research & development).
- An understanding of how New Zealand has used outcome-based legislation and the application of that system to support market capability to achieve export equivalence
- An understanding of how New Zealand supports agriculture and the primary sectors (what we do and what we do not do).
- An understanding of the robust outcomes-based regulatory systems that support New Zealand's drive to achieve recognised standards in environmental sustainability, animal welfare, biosecurity and food safety.
- An understanding of how the government works together with industry – including through enabling legislation like the Commodity Levies Act (and how 'industry-good' bodies work) and through consultative groups.
- An overview of the range of trade agreements that New Zealand is a party to, including the World Trade Organization (WTO), free trade agreements (FTAs), and other bilateral agreements (for example, the EU/NZ Sanitary Agreement), and the industry role in developing New Zealand's negotiating position and how agreements are implemented.
- An initial collaborative work programme that will support trade and co-operation between New Zealand and the United Kingdom.

KEY ADVANTAGES AND DISADVANTAGES, AND OPPORTUNITIES

Potential NZ advantages

- Two high level objectives underpinned by the whole sector – maintaining high standards of biosecurity and maximising and maintaining the broadest range of market access opportunities.
- More benign climate - longer period of grass growth with associated production and environmental opportunities
- A climate where rainfall largely falls in the summer removing the need to house livestock, which results in a very low-cost production system.
- Good markets relatively close at hand e.g. China, Indonesia and Malaysia, providing carcase balance options and profits from these markets can be used to subsidise transport to other markets further afield such as the UK.
- Greater join up between industry and government on a shared purpose of 'trade or die'.
- A clear focus on continuous improvements in performance and productivity.
- A good diversification in international markets. More market and consumer focus driving a concentration on improving the product and business performance.
- Better border biosecurity and shared public ambition driven by the need to keep diseases out of the country.

Potential NZ challenges

- No individual animal traceability.
- No generally organised farm assurance programme.
- As yet, no real focus on environmental protection – for example, the use of helicopters for fertiliser application in the uplands.
- Physical distance from markets.
- Competition for land from other agricultural and non-agricultural activities.
- Environmental footprint of livestock production.

Lessons to learn and opportunities

- Drive better market focus by reducing reliance on subsidy.
- Shape our regime to support the outcomes we are looking to achieve - better environmental performance; better animal welfare and better productivity.
- Enhance industry/Government working together in partnership.
- Market positively on our points of difference around environment and welfare.
- Drive better, more consistent quality.
- Learn from NZ in international markets and drive up the proportion of output being exported (i.e. carcase balance). This will improve returns to farmers and supply chain by creating more demand and improving carcase utilisation.

JOINT REPORT

A brief history of NZ trade

Key Points

- NZ has a long history of export going back to 1882 and has a long association and affinity with the UK including supporting the UK through two world wars.
- The UK joining the EEC forced NZ to actively find diverse export markets around the world.
- Agricultural policy reform in the 1980s had a major impact on the NZ agriculture industry and brought renewed focus on the need for free trade for NZ produce on world markets.
- An outcome-based approach seeks to ensure that Government only intervenes when absolutely necessary.
- The cost associated with reaching and competing in export markets encourages a constant focus by Government and industry to keep costs to a minimum.

NZ first shipped frozen lamb to the UK in 1882 on the Dunedin, the first ship with refrigeration. During the First World War, NZ had a commandeer agreement with UK to supply goods for the war effort. In 1922, the NZ meat board was established and by the end of the Second World War over 70% of NZ products went to the UK. NZ agriculture was doing very well and was well protected with a good market. By the early 1970s NZ exports to the UK had dropped to 30%, but the UK was still the major export market.

All this changed when the UK joined the EEC, reducing market access for NZ agricultural products to the UK. NZ started to be more interventionist in the 1970s – which caused huge distortion and the sheep flock exploded, yet the quality declined. They realised this tactic wasn't working and changed tack: in the mid-1980s NZ was close to bankruptcy and almost overnight NZ went from an interventionist country to adopting a free market approach. Throughout the 1980s, all support and subsidy were removed from agriculture, and this was painful for many. NZ recognised it was a global economy and sought to drive quality up. They also worked, and still do, in OIE and CODEX to ensure the right regulatory framework is in place. Now, Government only intervenes if absolutely essential, recognising that NZ's future is in the global economy.

1980s agriculture reforms in NZ

Policy decisions not to support or intervene in markets were taken by the NZ Government in the mid-1980s in response to a financial crisis facing the country. Removing farm subsidies was 'fast and brutal'. It was difficult, but they lost fewer farms than they expected and many of those who did go out of business did so because of the high interest rates rather than the loss of direct support.

Key points

- The reforms in New Zealand took place out of necessity: the New Zealand economic crisis meant Government had no money to support agriculture (previously one of the supported sectors) Reform was NZ wide, not just agriculture.
- The impact on many farmers and rural communities was severe. A strong rural support/counselling network was required. Similarly, the removal of support had a major impact on the red meat processing sector in NZ.
- A more enabling regulatory framework should be introduced prior to reform or at the very least at the same time as reform.

- Support is required to help farmers new to the industry and to those who have borrowed to take their business forward.
- Support for those who wish to retire with dignity from the industry. Government provided exit grants of c.NZ$45,000 to facilitate farmers leaving the land and setting up elsewhere and/or seeking alternative employment.
- The willingness of the banks to support agriculture through reform is crucial. Interest rates and currency changes can impact on some businesses more than change in support levels.
- Government legislation around labour on farms was a big issue; employers in the agriculture industry must not be treated differently to other sectors.
- All Government departments who have a direct or indirect impact on agriculture must understand the change and buy into the new model.
- New Zealand now has a number of sophisticated support mechanisms at both regional and national levels dealing with productivity, risk management and the environment. The speed of the reforms meant that these were not in introduced contemporaneously with the removal of direct support. These mechanisms need to be established and implemented prior to, or as part of, any reform.
- Access to a wide range of export markets is crucial, New Zealand agriculture only returned to some stability once access to export markets was significantly increased in 1994.
- All changes to farm support were completed within 18 months, although changes to farm regulation was much slower and added considerable cost for farmers at the time. Rural communities 'took a hammering' but then recovered, mainly through tourism.
- The perception within NZ is that deregulation did not affect on-farm standards, including environmental standards. Regulation should be outcome focussed and sufficient to meet the demands of the customer. Increased regulation without a basis of sound science and above international agreed standards is another form of protectionism.
- Reduction in subsidy led to stock liquidation, which in turn crashed the market. Over time, production has stabilised against the backdrop of a halving in breeding ewe numbers (1990 to present day) driven by efficiency improvements.
- Social security type payments were available and continue to be so for individuals to assist in coping with catastrophic events beyond their control - drought, flooding, etc.

More detail is at Annex E on the regulatory and subsidy changes made by NZ in the 1980s is available as a Q+A from the sessions held in Wellington.

NZ trade policy and market access

New Zealand view international standard setting bodies as critical in establishing the rules of engagement and the means by which non-tariff barriers can be controlled. New Zealand invest time, effort and resources to influence the international rules that apply to trade and the standards governing traded products. Processors, farmers and the Government are aligned to a common goal of maintaining and enhancing the opportunities for export.

There is an equal focus on opening new markets and maintaining existing ones. They believe that an important part of maintenance is reducing the cost of compliance for export certificates.

Work on opening new markets is based on a combination of industry priorities (based on business plans and potential return on investment) and feasibility (based on Government knowledge). For

example, the industry wants to regain access to Russia for beef, but the Government believes the effort required at present would outweigh the gain.

The Ministry for Primary Industries (MPI) has two clear divisions. One is setting/influencing the big picture on the direction of trade and policy. This also involves being the listening station to monitor what is happening in trading partner countries and what could have a positive or negative influence on trade. The second is dealing with the issues around access to market. This will cover the day to day practical challenges that arise as well as the general phytosanitary rules and regulations, these being critical to successful trade.

Reaching an agreement on an FTA is only the first stage. For an FTA to be successful for industry, ongoing relationships need to be built and maintained, while day to day transactional trading rules need to work.

Government's role is to create a choice of markets to operate in by achieving export approval agreements, thus providing the opportunity to export to a large number of countries. Once opportunities to export exist, industry should be left to determine which of these offer the best commercial opportunities. Growing markets relatively close at hand e.g. China, Indonesia and Malaysia, provide carcase marketing balance options and the chasing of highest profit margin from the most valuable markets for the selected cut.

It is impossible to produce food to the same standard as all the countries you wish to export to. For New Zealand, who export to more than 100 countries, reaching agreement on equivalence between domestic and export standards is critical. Equivalence recognises that while the operating standards may differ, the outcome, particularly around food safety, are at least equal to those in place in the importing country.

Elimination of tariffs as a barrier of trade have been replaced by phytosanitary standards as being the new barrier to trade. There is a need for Government to work hand in hand with industry as it goes into discussion on FTAs, as there must be a clear understanding of the operational mechanisms of industry in order to ensure 'standards and operational protocols' don't become the new effective tariff with unrealistic or unnecessary requirements.

Overseas markets may also offer valuable opportunities to export 5th quarter material that could shift from being a cost centre to a source of revenue. An assessment should be done to identify the opportunities, match them with future market access and build a future trade strategy around these elements.

Reducing the cost of compliance is a huge part of the market access strategy of New Zealand. Compliance costs kill the opportunity for trade. Ideally, New Zealand would like a situation where their standards are considered equivalent by the importing country.

Industry has a significant role to play in ensuring that Government can secure access to markets – industry intelligence and the partnership between Government and industry is critical. Each party needs to understand their role and where each can add value.

The MPI has a network of overseas officials embedded within their Ministry of Foreign Affairs and Trade (MFAT) – currently having 15 offshore bases and a base being set up in London, initially as a policy dominated role. People on the ground is considered to be a priority, with MPI staff with technical and policy knowledge posted overseas to work alongside MFAT, in recognition that MFAT representatives cannot cover all areas, e.g. sanitary controls within export certificates. MPI has five people in Beijing alone, in addition to MFAT people there.

New Zealand has, and continues to, invest a lot of time and effort in the international standard setting groups. Common rules are required for effective international trade. A simple, stable rule system is important. At a time when protectionism is growing, whether that be through tariffs or non-tariff barriers, having a set of international standards as a backstop is essential. UK must spend the necessary time in these international standard setting groups. Dividends from this activity do not come quickly and is part of the long game. More important than putting the resources into this area is being clear on the outcomes you want. A partnership with industry and Government on the outcomes is helpful. Effective policy coherence is important. What you are saying internationally must be backed up by your domestic actions.

While the reality is that trade negotiations are influenced by a country's political, social and economic position, NZ believes effective trading regimes should be based on stable, evidence-based systems. They take the negotiating baseline that NZ food is safe and export certificates should require nothing above NZ law. "Our food is safe. There is no such thing as safer or safest food." They consider any requirements above food safety to be a barrier to trade and put a lot of effort into both developing OIE, WTO and Codex frameworks (on the basis that transparency is in the interest of a healthy world system and NZ), and using these as a negotiating tool.

NZ has taken eight cases of trade barriers to the WTO and succeeded in having all of them removed. They believe every trade agreement should be based on full access, as 'success is only as good on your last deal' (i.e. if you do a deal without full access, the next country you work with will not agree to more than that – you are only as good as the last deal you did.) NZ is very proud of its international work to push for the elimination of export subsidies and is continuing to support WTO work to ban trade-distorting farm subsidies.

Partnership working is also considered to be a priority, within different Government departments (e.g. MPI and MFAT) and between Government and industry. They recognise they are different to almost every other country in the world, as MPI is pushing MFAT for more free trade deals, whereas every other farming ministry internationally would be trying to hold their trade ministry back. A core group of Government and industry meets every other month to discuss progress on existing trade discussions, next steps within emerging markets, and the latest WTO policies. There is a lot of shared knowledge in NZ as Govt officials and industry move between organisations much more – it's common practice and means that officials have a much greater knowledge and understanding of industry needs.

How does NZ prioritise new markets and maintain existing markets?

- Survey different sectors, what is the return on the investment following access to new markets.
- Actively directing product to the highest value market.
- Officials have a lot of knowledge, some markets are too demanding, i.e. Russia.

How important are bilateral agreements to NZ?

Very important. About recognising and trusting the NZ system (goodwill), which eventually leads to reduced regulation and verification. Relationships and people that make it happen.

NZ and EU negotiations

NZ is keen to agree an NZ/ EU free trade agreement. This would likely lead to a change in the current system of WTO tariff-rate quotas (TRQs). In the meantime, they do not support the EU's position on splitting the existing TRQs post-Brexit between the EU and UK and believe Article 28a of

WTO rules dictates that any change to the quota would require the EU to renegotiate the entire NZ-EU trade agreement.

FTA discussions with the European Union – NZ has considerable manpower dedicated to this in London, Brussels and Geneva looking to build access and reduce barriers. Working with Commission officials to manage certain member states that have a protectionist attitude. NZ try to make sure they are an attractive partner to do business with.

Industry and Government alignment is important

There is a clear alignment between Government and industry. This is much stronger than exists anywhere within the United Kingdom. While structures have been put in place that support the model, it is not the structures that are the critical component but rather the fact that industry and government are aligned around a common goal and purpose.

The relationship between Government and industry goes beyond the usual platitudes of a close working relationship and consultation on issues. There appears to be a genuine partnership approach driven by the importance of the red meat industry to the New Zealand economy. Government/industry collaborative concept is strongly embedded in industry and the MPI, but there is a recognition that ministers change.

Farmers, processors and Government have aligned over a common focus - the export market. The focus on exports has allowed each to put aside the differences we see in the United Kingdom and work collaboratively on industry development and regulatory reform that support exports. The industry wants Government to ensure that the doors of trade are open and that New Zealand can trade freely with other countries.

When asked if NZ has an equivalent of the UK's Groceries Code Adjudicator, we were told the 'Dairy Industry Restructuring Act 2001 was introduced at the time Fonterra was formed (through the amalgamation of two large dairy co-operatives) to manage the risk of monopoly behaviour in the New Zealand domestic dairy sector. No further measures were required for the red meat sector where the large number of processors with multiple (and growing) markets mean farmers could pick and choose who they sell to.

Strategic Directions Group (SDG)

One of the most crucial private-public partnerships that exists in New Zealand is the Strategic Directions Group, which is a governance body made up of industry body members and government for reviewing red meat regulatory requirements – including market access, meat inspection and cost recovery. It understands the need to work through the various 'tensions' between Government and industry on protecting international food safety and the industry's reputation while meeting commercial imperatives. Collaboration without compromising the independence of the regulator.

Opening new export destinations is a combined effort between Government and industry, with the Meat Industry Association (MIA) helping MPI and the Ministry of Foreign Affairs and Trade (MFAT) prioritise markets through the Strategic Directions Group. This meets four times a year and is a key part of the close working relationship between industry and Government.

The aim of the group is to review red meat regulatory requirements to NZ's ensure food safety reputation while meeting commercial imperatives. It also provides a platform for strategic exchange. Has a fund available collected from the levy to solve problems. Allows MPI a vehicle to report activities, meets 4 times a year. Empowered to set up technical working groups to address specific

issues, for example, the recent bobby calf welfare exposure news story. The group reviews FTAs that are under discussion. There is then a clear alignment between what Government is doing to deliver industry needs.

Their processing industry and government work closely together in ensuring that regulation is an enabler to exports. They don't want costs that don't add or deliver value.

A strong supply chain needs to demonstrate the relationship between Government (legislator), the competent authorities (the enforcer) and industry (the supply chain). This is something we could learn from and implement far more effectively within the UK. Possibly by instigating a similar group to the Strategic Direction group in New Zealand. This would enable a far greater connection between all the parties mentioned above, allowing an improved understanding of the key issues and quickly and effectively resolving them by getting everyone signed up.

Agriculture outcome based regulatory framework

The regulatory system is outcome based rather than prescriptive. The key is to have a common agreement on the desired outcome.

The New Zealand regulatory framework is outcome-based, with a commitment from Government to only legislate where necessary (i.e. on food safety, but little else). This applies to additional standards required by export markets, as there is no appetite to meet prescriptive measures of assurance standards from multiple countries. They negotiate and prove compliance to 'equivalence' instead.

The Government believes an outcome-based approach results in a better response from farmers, as they respond more positively to being told a problem needs to be resolved to support New Zealand's export reputation, rather than being told specifically how to fix it.

The New Zealand regulatory model places responsibility on businesses to demonstrate compliance with standards set by MPI. The regulatory model is a preventative risk- and science-based system, with industry having responsibility for producing safe food, in addition to demonstrating operating systems and processes to achieve the latter with Government oversight. MPI develops and enforces legislative standards and requirements for New Zealand's primary production and food businesses and the import and export of primary products. In the food processing sector, MPI puts in place and enforces food safety laws and requires operators to have MPI approved and registered risk-based management programmes that are independently verified. MPI provides official assurances through export certificates to foreign governments that agri-food exports meet New Zealand and additional overseas market requirements.

Ensuring regulatory equivalence with the countries that NZ export to is number one objective and they assess the minimum standards to access a particular market. Government only applies a regulatory approach if it is absolutely necessary.

There is a lot of emphasis on enabling legislation designed to help industry collaborate and grow. The legislative "culture" appears to be one of "enabling" although checks and balances occur behind the scenes to make sure the "spirit" of what has been agreed is complied with. Decisions are made on a science and risk-based approach.

It is important to look at a whole chain approach, delivering a risk-based approach using public private partnerships wherever possible. The focus is on getting industry to take ownership on the

outcomes required with a drive for continuous improvement. Industry wide, there is a joined-up approach and collaboration.

The regulatory framework is outcome based and enabling to facilitate serving multiple markets.

The significant cost of getting product from NZ to overseas markets means there must be a constant focus on reducing the cost burden. The key to success is collaboration between Government and industry.

Commodity Levies Act (CLA)

The CLA is enabling legislation to help industries collaborate and grow. It enables sectors to establish levy bodies to pursue industry-good activities of their choice (e.g. R&D, market research, quality assurance, education, plant/animal protection, product promotion) to be funded by means of a levy on the sector in question. Industry-good activities are those under-provided by the market, have a net benefit to levy payers and are not commercial or trading, where, in UK terms, there is clear market failure. Examples of activity covered by this definition would include a disease levy or an additional traceability levy.

Applications under the CLA must meet certain defined criteria so that the Minister can be satisfied that it meets all the requirements of the CLA. Twenty-nine levy orders are currently in place with levy income ranging between NZ$15,000 and NZ$55 million per year. Levy bodies established are subject to a referendum of levy payers every 6 years. Failure to secure majority support of voting members leads to automatic dismantlement of the levy body, with no appeal right by NZ Government.

Farm assurance and traceability

Until recently, there had been no universal farm assurance scheme in NZ, instead processors currently have individual assurance programmes that satisfy the requirements of various markets, but a new national programme will allow for generic promotion of New Zealand product. In the last few years, New Zealand has implemented a regulatory and market access focussed farm assurance programme facilitated by farmer completed Animal Status Declarations (Animal Products Act) supplemented by commercial assurance programmes that satisfy the requirements of various markets. There is a developing industry commitment to the new standard and focus on environmental protection building upon regulatory expectations set under the Resource Management Act.

There is significant crossover between private and public audits. Because nearly all red meat is exported, farmers have to be part of an assurance scheme to be able to sell their product. Market forces therefore ensure high compliance, with government audits conducted at random to ensure legal compliance. A government audit will definitely occur if a farmer or processor has grossly failed an assurance audit.

A confident, partnership approach (a ‘public-private relationship’) allows the Government and industry to meet audit requirements of the countries they export to, of which the strictest are from the EU and USA.

The delegation was told that animal traceability systems in New Zealand had been designed to meet the contextual needs of the favourable animal health situation and export market expectations, providing traceability from the farm to market. Traceability is supported by individual animal ID for deer and beef and flock level identification for sheep.

There is a significant difference between the U.K and New Zealand with regards to sheep identification and particularly the requirement for individual EID tagging in the EU, as opposed to the New Zealand system. Seemingly, the New Zealand system has been created with an outcome focus, allowing a product to gain market access. The equivalent in the EU has clearly been more focussed around process and audit, providing a very high level of accountability, with perhaps less operational performance.

OPPORTUNITY: In the future for UK supply chains could change to a more outcome focussed system, delivering for the supply chain, while maintaining that underlying process and audit to allow us to meet premium markets demands worldwide. The work streams through LIP and LIDEH provide the potential to deliver on these points and are invaluable to allow us to further develop our traceability systems.

Food Safety

With nearly all of New Zealand's food production sold overseas, the main priority of both industry and Government is food safety and reputation. They are clear that there is no such thing as safer food, it's just safe food – a push back against the drive to continually ramp up standards and the implementation of non-outcome led legislation.

Above the baseline of food safety legislation, MPI and industry are looking at adding value through higher welfare standards (due to demand from export markets, particularly UK) and assurance programmes to back-up label claims.

Food safety or other regulatory measures are established by MPI and provided to private sector businesses, which are responsible for developing risk-based management programmes to achieve the required outcomes, to ensure food is safe and consumer well-being is protected.

MPI utilises customer needs analysis across the food supply chain to inform strategy development and review, in line with emerging trends, opportunities and issues.

The high degree of integration across the New Zealand agri-food supply chain offers potential to inform future policy development for the UK agri-food industry.

The use of company staff to provide services, including meat inspection, on behalf of the competent authority, providing supervision and control in processing plants, makes a lot of sense and could be an area further developed in the U.K. This would have to be managed with earned recognition of company control, overlaid with an appropriate level of supervision from the competent authority. This approach should allow a more cost-effective trading model, without compromising our high standards, providing the correct level of oversight managed through earned recognition.

Animal Welfare

The southern hemisphere systems appear to have a lot less consumer pressure, however as the New Zealanders recognise from supplying the UK market, increasing pressure from NGOs and single interest lobby groups is becoming more of a factor.

New Zealand clearly has very large and commercially operated farms, resulting in minimal labour per head of stock. The animal welfare regulatory framework in New Zealand places duties and obligations on farmers to meet animal welfare requirements while economic outcomes are pursued. With current discussions in the UK surrounding future policy, these commercial pressures

could impact on animal welfare. Creating the right balance to ensure a high level of welfare, while maintaining profitable businesses, would have to be part of future discussions.

MPI has Government mandated auditors that will check farm compliance with animal welfare and biosecurity legislation.

MPI visits 1,200 farms each year, which includes 300 dairy farms which are timed to match calving, i.e. to check welfare of calf disposal. Fallen stock can be disposed of/buried on farm.

There was a sense of wanting to ensure high standards of welfare, farming and processing combined with keeping regulation to a minimum unless there was market failure.

Research, development, and innovation

MPI works closely with science and food safety is the base line. MPI also look for innovation using new technology to improve product margin.

Key points of note:

- NZ Agricultural Greenhouse Gas Research Centre: Opened in 2010 with NZ$50m support from NZ Government. Climate change matters to New Zealand with drought conditions expected to become more prevalent in the future.
- 'Livestock are Carbon Neutral but not GHG Neutral'. Close to 20% of the global warming observed in the last 100 years can be attributed to livestock.
- The centre is doing important work on mitigation options including:
  - Improving productivity of livestock (reducing emissions per unit of product);
  - New technologies (low methane ruminants, low methane feeds – forage rape has been shown to reduce emissions by 30%);
  - Methane vaccine;
  - Methane inhibitors (can reduce emissions in intensive beef and dairy by up to 30% but have to be fed daily with every mouthful of feed to work effectively).
- Two other areas of important research focus in the area of food integrity, including food provenance and assurance, and meat futures.
- Food provenance and assurance: Brand New Zealand is important to the international reputation of the industry and its products and a key project to protect the brand is one focussed on controlling zoonotic contamination of food on farm (this is particularly important for the USA market where there has been zero tolerance to STEC contamination of meat since 2010).
- Meat futures: This project is focussed on profiting from global beef trends and includes work in the areas of lean beef quality attributes for the Asian markets; extension of shelf life through better management of bacteriology at meat plants; understanding the relationship between environment, bacteria numbers and shelf life.
- Massey University: Undertakes key R&D in support of the red meat industry. One of the key areas of concern in New Zealand at present is the quality of water and agriculture's contribution to its reduced quality. Massey University has been investigating the attenuation factors of land units and sub-catchments and how best to reduce nitrogen on its way from farms to groundwater and streams by converting it to harmless N2 gas.
- As well as gaining a better understanding of the attenuation potential of different soil types, a suite of practical solutions has been developed for site specific mitigation, including the effective management of wetlands, winter cropping and supplementary feeding

considerations, controlling surface drainage, bioreactors, constructed wetlands, standoff systems for dairy cows and use of nitrogen reducing forages such as plantain.

Global Research Alliance on agricultural greenhouse gasses

The GRA was established by NZ in December 2009 and now has 49-member countries, including the UK. The GRA is focussed on research, development and extension of technologies and practices that will help deliver ways to grow more food (and more climate-resilient food systems) without growing greenhouse gas emissions.

Put simply, the role of the GRA is to resolve tensions between food security and GHG mitigation. The GRA is seeking to reduce emissions from agriculture to help meet the Paris target. Based on current technology and the cost effectiveness of current mitigation measures we can only get about 20-40% of the way there. We need low cost options, new options and to be able to value soil carbon.

Examples of outputs include:

- Successfully identifying low emission traits in sheep without compromising meat yield or wool growth.
- Comprehensive global survey of ruminants suggests similarities in rumen microbiome irrespective of species and environment, meaning potential for global application of mitigation technology.

The key goal must be to improve production efficiency by reducing emissions from good productive agriculture. There is a lot of potential to reduce emissions through improved productivity. For example, the gain is massive in the dairy industry for lowering GHG per unit of production if we can increase yields for cows currently yielding below 3000 litres annually.

Agriculture is now central to many countries' response to climate change. There is increasing focus, but there is a big issue over lack of data especially in developing countries.

Is there potential for storing more carbon in soils? Soil health is not necessarily improved by increasing carbon sequestration. We must use the same methodology across the world for measuring soil carbon.

Beef & Lamb NZ on farm research strategy

B+LNZ's research vision is for New Zealand farmers to be 'farming economically and regeneratively, in a diverse landscape of production, protection and conservation of lands, and farming will be an integral part of what it is to be New Zealand'. It states that 'red meat sector research investment and co-ordination will be a catalyst for increasing product value, enhancing farm profitability and optimising stewardship of land and water'.

A focus for their research is ensuring approaches are science-based. For example, they are developing a science-based criterion for both what is, and what is the value of, a healthy soil, and are looking for science to support the national farm assurance scheme that is the basis of the 'New Zealand red meat story'.

Research themes

- Data insights – better understand consumer preferences, horizon scanning analysis of value chain inputs

- Creating value – create new sources of value for co products, new breeding technologies for animals and forage, support the NZ story
- Innovation and adoption – create a step change through technology and using social science
- Stewardship – regenerating landscapes, water and air. Establish a baseline so they can reference in the future
- Transparency – use science to support NZ farm assurance programme, validated points of production, processing and delivery to consumer preferences

Future Farms

They are in the process of founding a commercial beef and sheep farm to use to research best practice animal welfare, environment, biosecurity, people management and H&S. Currently, they are establishing farm and base line parameters.

MIA led collaboration R&D programmes

MIA has active programme of investment in pan industry 7-year R&D partnership. Examples of the work include, determining sources and routes of carcase contamination, reduce microbiological contamination on fleece and hides, STEC source studies on NZ farms, cool chain modelling and antimicrobial resistance.

Ovine Automation ltd is a company with specialism in the field. NZ$11m has been invested by 9 processors and Government to develop automation across the slaughter line remove the human risk factor, minimise contamination, improve carcase and pelt quality. Ten new technologies have been delivered: searine bung (tallow based), gas depleting, Y-cut, brisket cutting, roll off, sock cutter and pelt rolling robot, ultrasonic knife.

Science informed, community led, sustainable agricultural growth within environment limits – Massey University projects:

- New generation beef: producing lightweight carcases from yearling dairy origin cattle born July – August (NZ winter), slaughtered at 300kg liveweight at c.10 months. There are good markets in Asia and South America.
- Beef breeding cow efficiency: impact of cow size and milk production potential on calf production – looking at cow size verses milk production.
- Dairy beef progeny test - to identify bulls to produce easily born calves with high quality meat from dairy cows.
- Recent advances in sensing and tracking livestock: what grazing are they using, how often and where they drink.
- Forages and grazing management – using pure plantain and plantain and white clover mixes.

NZ doesn't have any ammonia regulations, but these emissions mainly come from housed animals and NZ hardly houses or yards any ruminant animals. Even slurry from dairy cows is low as they spend very little time in collecting yards and this slurry is removed and spread almost immediately.

Water quality projects

Within the trip, we were again shown numerous projects and pieces of work to tackle and improve water quality. While there were some very good projects, we did feel that our farming systems, supported through environmental schemes, were already delivering on many of these newly established projects. Therefore, we feel that our environmental credentials are something that we should be utilising far more to help market our products.

Sustainability and resilience

Sustainable farming fund

The definition of sustainability used was "the quality of not being harmful to the environment or depleting natural resources, and thereby supporting long-term ecological balance." In the MPI context of investment programmes, it was described as "things that will contribute to delivering economic, environmental and social benefits to New Zealand's primary industries that will preserve it for future generations." There were a range of funds available that could assist with providing grants, these included: -

- Hill Country Erosion Fund (and SLUI)
- Erosion Control Forestry Programme
- Afforestation Grants Scheme
- Earthquake Recovery Fund, and
- The Sustainable Farming Fund

Support is given for hill country and hill erosion schemes: 1.4m ha is at risk of erosion. The support funds the planting poles (small trees) in gullies so the roots bind the soil and prevent landslips – there is a spacing of 7 to 10 metres. Will have MPI officials to check that the poles have been planted and the plot locations using GPS.

Grass roots schemes have been running since 2000. NZ$150m has been spent to date and all primary industries are eligible. NZ$7m in funds is available annually, projects require non-government funding contribution of at least 20%. Applicants can apply for up to NZ$200,000 a year for a maximum of 3 years. An external panel of subject matter experts is used to assess and recommend funding applications. In order to be successful a number of criteria were identified, including the following:

- It is a partnership - working together with low co-funding requirements.
- Solves problems significant to local communities at the regional level.
- Being farmer driven, engages the community and has more likelihood of success in delivering objectives and outcomes.
- It brings people together – farmers and technical/science experts.
- Strengthens partnerships and networks in rural communities.
- Farmers sharing and leading other farmers works!
- It has a flexible and open approach to funding community projects across all sectors, different project sizes and terms.
- Can accommodate some change to project milestones as they happen (flexibility).
- Projects make a worthwhile contribution to both primary industries and rural communities in improving productivity, profitability, and improved sustainable resource management.

The schemes are generally skills based or promoting capability. Demonstrating high levels of co-funding often results in the best projects. Schemes are a partnership and solve problems significant to local communities by bringing farmers and technical experts together.

Adverse/extreme events impacting on New Zealand's agri-food sector

There are also many support mechanisms available in case of earthquake or other natural disasters. MPI's role is understand and analyse the impact on rural areas and communities and to oversee and

co-ordinate recovery programmes. Policy Development on Primary Sector Recovery commenced during 2006 following an extreme flooding event, with the guiding principles:

- Aim for NZ's primary producers to increase resilience
- Primary responsibility for risk management lies with land owner and local communities.
- Government is not the insurer of last resort
- Government assistance is proportional to the impact/size of the disaster
- Government acts fairly
- Government actions do not interfere with commercial solutions

MPI seeks to adopt an agile and flexible approach to extreme event recovery through building strong relationships across the agri-food sector, notably with 14 rural support trusts across New Zealand with rural mental wellness programmes and the creation of well-connected and functioning farmer-based referral and peer support networks being key priorities.

MPI's experience with agri-food sector extreme event recovery policy development and delivery indicated potential to inform, review and further the development of extreme event recovery policy in the UK.

Biosecurity is a key NZ Government role

Biological risk control is the single biggest thing farmers recognise as the role of Government. "Biosecurity is the exclusion, eradication or management of pests and diseases that pose a risk to the economy, environment, cultural and social values, including human health". [1]

In short, along with market access, protecting biosecurity is the major plank of NZ agricultural policy. Legislation is enacted under the 1993 Biosecurity Act, MPI is the lead department and central government spending amounts to NZ$250 million a year, some of which is cost recovered.

Protection is achieved through multiple layers. NZ is highly active in relevant international fora (e.g. OIE, IPPC, IMO) and focuses on keeping risks offshore by embedding standards into trade agreements, through risk assessments and rules of entry. Additionally, NZ horizon scans for new risks and develops protocols to minimise the chance of introducing the event into its territory. Protocols are in place and road tested for readiness for when or if an event occurs, e.g. foot and mouth. Border checks and surveillance are geared towards intercepting risks across key pathways.

A recent review undertaken on biosecurity emphasised the importance of being proactive and driving smarter and faster risk management throughout the system to stay on top of the game against a background of a higher risk profile caused by climate change, tourism, greater diversity in trade, social change and new pathways (e.g. mail order). The strategy orientates itself on a preventative system in which those who trade in food take responsibility for the safety of the food, in which there is an onus on food processors to demonstrate compliance. As with other areas of government intervention in NZ, the new strategy is a balance between outcome-based, process-based activities with some prescriptive regulations.

Some examples of NZ's biosecurity activity are

- Import health standards – rules for entry of risk goods. Use eradiation for managing fruit fly risk products from Australia.

[1] Biosecurity 2025 Direction Statement

- Controls – airport pathways for passengers. Identify high risk passengers, use of dogs, x-raying of bags and physical inspection at the border. Border controls are very strict and shipments from Italy and Japan have been turned away for not being clean enough.
- *Mycoplasma bovis* response – containment, surveillance and leading to eradication
- MPI works in partnership with industry organisations with a shared interest in protecting the high health status of the country, as well as local government and the public. It is clear that the population appears to buy-in to the importance of high biosecurity and play their part in delivering the safe environment. MPI's activities in combatting new pests and diseases are reported regularly on news programmes, emphasising the importance of the issue within NZ.
- Industry organisations – part of the decision-making process but share costs. There is a greater focus on getting others involved, cruise ship companies are a 'risky' business so they need to help manage that risk.
- Domestic activity includes surveillance (which has just found a new mosquito that they plan to eradicate) and response plans (the current response to *Mycoplasma bovis*, and regularly checking food-and-mouth contingency plans). Work is also beginning on making NZ free of non-indigenous pests by 2050, with national eradication plans for rats, possums, stoats and weasels.
- Farmers – biosecurity starts at the farm gate.

Knowledge exchange (KE) in NZ

Knowledge exchange style projects are based on mentors, facilitators, co-ordinator and administrative support bringing in expertise as identified/needed. Farmers can now access professional advice with 82% reporting change as a result of the advice received, a very positive outcome is the rise in farmers' confidence to implement change, an increase in trust in experts and an increased rate of practice change.

Key points of note:

- Red Meat Profit Partnership (RMPP) – an industry co-funded programme with MPI. The 7-year programme started in 2013 with funding of NZ$64m. The aim of the programme is to shift the sector to a higher degree of profitability already being achieved on top performing farms. Partners in the programme with MPI include meat companies, banks and Beef+Lamb NZ. RMPP funding is 50% from MPI, 25% from B&LNZ and 25% from banks/processors.
- A series of projects underpin the initiative, including people capability, data and systems, post farm performance and productivity, extension.
- The extension approach is to put the 'farm team' at the centre.
- Adoption of information/research is at the heart of the programme and during the pilot stage 75% of farmers engaged with subject matter experts and 82% have done something different on farm.
- From the start of 2018, the programme is being rolled-out nationally on the back of the successful pilot and the aim is to engage 3,000 of the 7,000 commercial farm businesses paying levy to B&LNZ.
- The aim is to establish groups of farmers (ideally 7-9 businesses per group) which are farmer centred and facilitator led. The second and third quartile of the farm performance bell curve are being targeted. Processors and banks work together to help identify farmers and so far 340 farmers have signed up to date.

- Through the RMPP each group can draw down kick start support of NZ$4,000 per member which the group collectively decides how to use. After one year, farmers in the group are each asked to contribute NZ$800 to top up the initial RMPP support.
- The target is to increase profit by NZ$114 per hectare.
- Primary ITO (Industry Training Organisation): Vocational training organisation owned by industry and covering all sectors (agriculture, horticulture, seafood, equine, sports turf, food processing and other industries). Provide 290 qualifications and in 2017 trained 29,000 individuals across 7,000 workplaces in roles ranging from primary functions to management. Training is both informal and formal.
- Organisation is co-funded by government (70%) and industry (30%) and works closely with industry to scan trends, understand workforce needs and focus on productivity.
- Some key areas of current focus include supply chain integrity (system specific, proof of skills, auditable); farm business management and leading effective teams; women within agriculture (lifting the capability and empowerment of the farm partner within farm businesses) and micro courses (where industries have a need for immediate training in specific areas).

Women in Agriculture

The Agri-Women's Development Trust provides learning opportunities for 15 participants per year, similar to the Nuffield/Kellogg schemes. Given the significant involvement of farmers' wives with the management of farm businesses, there is a compelling need for knowledge transfer and support programmes to include provision for farmer wife/women participation. Wives are being targeted as they are seen as a critical part of the family farm business operation. The objectives are to empower women to be business leaders and decision makers, developing transferable skills that can be applied.

OUTCOMES

UK and NZ industry collaboration

There were discussions between UK and NZ industry representatives (not Government) on shared areas of interest – the deliberation was around where we want our industries to be in 2030, not the immediate concerns around Brexit and trade.

- The session began with the facilitator discussing with the group the ground rules as to what the group felt could be discussed and what couldn't as part of any potential collaboration programmes going forward. The subject of trade was one that was agreed wouldn't feature in these initial collaborative discussions.
- A good wide-ranging discussion did then take place on areas of shared interest where collaboration on future programmes between the UK and NZ may be possible.
- These were categorised into 13 broad areas including R&D; climate change; positive red meat industry and messaging; halal; farm excellence; women in agriculture; common methodologies and metrics to measure and benchmark performance; outcome-based regulation co-operation; labour capability and access to labour; diet and health; trade in emerging markets (Africa); biosecurity; value of co-products.
- The industry representatives present decided to each take a vote on their top three issues and try to narrow things down into a potential collaborative approach.
- The top three issues which arose from this exercise were diet and health, farm excellence, and outcome-based regulation, with climate change coming a close 4th. It was felt that perhaps all four of these issues where ones worthy of consideration.

Moving forward

A shared vision or objectives for the global sheep meat sector in 20 years' time

For red meat to be a valued, premium product, produced by thriving farming communities and supply chains.

Opportunities:

The group agreed that there were two broad key elements to our shared vision, namely:

1. Promoting value of red meat
    - Practical solutions to combating climate change
    - Positive health messages

2. Supporting farming communities and supply chains
    - Farming excellent
    - Regulatory co-operation on outcome-based schemes

Having agreed the areas of potential collaboration the industry delegations agreed to reflect on the conclusions of the strategic discussion; agreed that there would be a follow up teleconference in about one month's time (with a smaller group from each jurisdiction) and that a group of NZ/UK representatives would aim to reconvene in the UK during May/June to review opportunities to work together and agree an action plan on the way forward.

COMMENTS ON THE VISIT

Alan Clarke, Quality Meat Scotland – "I was struck by the can-do attitude that existed in the sector and the no farm subsidy policy has led to a very business focused approach to production, it's not about selling a carcase, it's about selling added value products that customers are willing to pay a premium for. However, it has been realised that this has also created environmental challenges.

I was particularly impressed when visiting the second farm to be welcomed with a handout of figures giving an overview of the farm. We saw and heard of many high-quality farming practices which are similar to the best farmers in the UK, however the feeling was that that was the norm and not just the higher quartiles.

The removal of farming subsidies in the 1980s caused major hardship at the time but has created a very different economic model today. New Zealand exports the vast majority of its red meat production – more than 90% and there is a feeling of joined up-ness between farmers, processors and Government and although we are sure that this is far from perfect, there really appeared to effective communication across the supply chain with a common purpose and there was no doubt that everyone was in the food production business. There is also a lot of support for farmers to assist them in improving the profitability of their business.

There was a sense of wanting to ensure high standards of welfare, farming and processing combined with keeping regulation to a minimum unless there was market failure. My perception was that government policy is not to put "red tape" in the way, but to be an enabler to assist producers rather than controlling the system to ensure that everyone complies. Although not evidenced, it was clear that anyone not meeting the highest standards would be identified and action taken to rectify behaviour."

John Dracup, red meat sector consultant – "New Zealand has recent history of major agricultural reform which is extremely relevant to the U.K. This was the ceasing of agricultural production support which had a substantial impact on agricultural production, but also on the wider economy. This is important to understand and interpret into the UK exiting the E.U.

What we saw during our visit clearly works very well and meets New Zealand's requirements of both legislation and customers specifications in today's market. This may not be enough for more demanding and discerning customers in more exclusive high value markets.

Through challenging our current activities and collaborating, the UK and New Zealand should be in a position to dominate the world's premium lamb markets throughout the year, relying more heavily on the seasonal advantages of both northern and southern hemisphere. Through focusing production in the northern hemisphere from May to December, and December to May in the southern hemisphere, maximising grassland production efficiencies and enhancing product quality.

The whole visit was well organised and co-ordinated and run with extreme efficiency. I struggle to find any areas of improving what I believe to be a successful trip with a clear outcome. I look forward to continue working with the group… resulting in positive actions across the industry and government, in order to develop a way forward, while creating an improved and more transparent relationship with New Zealand."

Ivor Ferguson, Ulster Farmers' Union – "The idea of closer co-operation in tackling other markets jointly worldwide is a good idea and is worthy of closer exploration. I think we should pursue this as, in theory, jointly we are in a good position to supply lamb all the year round."

ANNEX A: NZ's Red Meat Export Profile

Key figures

- 1965 - 76% of exports were to EU (5% to Asia), 2012 14% (41% to Asia) – exports to 130 different countries
- 91% of sheep meat production is exported.
- 90% NZ animals are processed as halal, and 40% of product is shipped out of NZ as halal.
- In 1961 the UK took 70% of NZ red meat exports. In 2017 30% went to China and 27% to the US.
- UK takes 14% of NZ's sheepmeat by value, China 26% by value and 11% goes to the US. NZ seeks to maximise cuts to the right market.
- Exports have evolved from carcases to cuts since the 1970s. There has been a huge growth in frozen and fresh chilled cuts, which has prompted a lot of product innovation to maintain shelf life.
- Co-products are worth NZ$1.5 billion or 19% total beef and sheep value.

International trade is becoming more complex with the increasing prevalence of behind the border barriers or non-tariff barriers. And emerging markets can be unpredictable, but there are opportunities thanks to the global demand for protein, and quality product. NZ recognises the need to maintain market access as well as grow new access agreements.

Halal Slaughter

Halal exports are a key part of the industry's business model and they have been doing halal processing for over 40 years, and it is becoming more important. In 2010 industry asked Government to provide regulatory standards for halal meat production, which have set the bench mark for certification bodies, slaughtermen and systems at processing plants. In 2016 they introduced a generic halal NZ certified mark. Non-stun slaughter for red meat is illegal in NZ.

Fifty-one export plants are approved for halal processing. There is a strict separation of halal and non-halal products. Many Muslim countries recognise the NZ halal regulatory process. Animal welfare market opportunities are now recognised by NZ as leveraging a market advantage.

Halal accreditation is a key part of the New Zealand industry and all lamb is processed using recoverable stun methods (non-stun slaughter is not legally permitted in NZ). It would be a huge advantage to animal welfare in the UK if we could demonstrate the stun systems in use in our factories to prove to the appropriate individuals that this system is acceptable to their religious beliefs (this is only needed to occur on a very limited number of occasions). Currently, UK legislation prevents these recoverable stun trials from occurring and is therefore a huge block to enhancing the welfare for this market.

Certification within New Zealand has also played a factor, not only in gaining market access, but also developing trust with their consumer base. A similar UK certification underpinned by some level of authority could not only to ensure trust in the process but confirm the high welfare standards of the product and improve access to the markets that demand it.

Lastly, it is apparent that communication between key players in the Muslim community and the red meat industry in NZ was invaluable to creating what appears to be a strong relationship within New Zealand. How we engage and create such strong links within the UK red meat sector is something

that can be done now and should be, but it needs that link to in plant practice in order to develop this.

ANNEX B: NZ's Red Meat Sector Bodies

Beef+Lamb NZ and Farming Sector

Beef+Lamb NZ is funded by headage based levies of NZ$0.60 for sheep and NZ$4.40 for cattle. Abattoirs collect the levy on B+L NZ's behalf. B+L NZ have to go out to farmers every 6 years to ask farmers if they want to continue paying the levy – need 50% one farmer one vote and 50% of production numbers agreeing. No levy paid is on live exports and no live exports are sent for slaughter – live exports are not good for value added or reputational image.

Despite the levy being collected by government statue, B+LNZ is separate from the Government and can lobby against government activity that it considers affects its members. It perceives the Government to be a 'generally friendly regulator' but will speak out if it feels proposed legislation is not time and/or cost justified. Current areas of concern are cost recovery models, inconsistency of regional councils in implementing water quality rules, and pressure placed on upland farms (hill country) by block planting of forestry.

Vision/strategy 2017 to 2022 – profitable farmers, thriving farming communities valued by all New Zealanders by supporting farming excellence, Govt and public insight and engagement, unlocking market intelligence, enhancing the environment. Promoting product overseas, removing barriers to trade, greater number of FTAs.

The four priorities for delivering this vision are:

- Supporting farming excellence (knowledge exchange)
- Government and public insight and engagement
- Unlocking market potential
- Enhancing the sector's environmental position

Farms are getting bigger but there are fewer of them, family ownership still dominates. Most farms are mixed operations, beef and sheep, and some deer. The industry average is 2,000 sheep, 200 cattle and 50 deer on a farm. Production growth will be heavily constrained due other product competition and environment issues. Land is being lost to dairy, forestry and life style farming. Also, less marginal land has been let go, i.e. not farmed, being set aside for biodiversity goods.

The 2017 stocking figures against the 1985 baseline (following removal of all subsidies) are dairy up 88%, beef down 21% and sheep down 53%. However, whilst numbers down 53%, lamb production (head) only declined 8.5%. Production was maintained through genetic and pasture improvements, which is a great story from a GHG point of view.

Meat Industry Association and Processing Sector

Thirty-seven processors are members of MIA, meaning it represents 99% of the industry's slaughter capacity. Membership is voluntary, rather than a statutory levy like B+LNZ.

MIA has a multi-functional role, including lobbying and policy work, interfacing between Government and industry, facilitating whole industry projects, and working on immigration policies to target labour shortages (particularly around halal slaughtermen).

The red meat sector is an export focused and market driven industry, which services 120 markets around the world based on market and product diversification, quality, and on-going research and development.

There are four major processors: AFFCO, Alliance, ANZCO and Silver Fern (covering 75% of total production).

NZ has just three halal cert bodies that contract services through MIA, including the recruitment of halal slaughtermen.

International trade is increasingly difficult due to increasingly complex assurance standards from all export destinations, and the challenge of getting into emerging markets where negotiating trade deals is unpredictable and not science/fact-based.

Opening new export destinations is a combined effort between Government and industry, with MIA helping MPI and the Ministry of Foreign Affairs and Trade (MFAT) prioritise markets through the Strategic Directions Group. This meets four times a year and is a key part of the close working relationship between industry and Government.

A success story of this close working relationship is a single certification for NZ halal product. This is a baseline halal assurance scheme with bolt-ons for markets such as Malaysia and Indonesia. China has recently signed an agreement to say it sees the NZ halal certification as a full equivalent of its own system, which is the first agreement of its type in the world.

There are a number levies that Government charges processors, plus cost recovery models, to cover things like meat hygiene inspectors, vets on slaughter lines, market access work, research and development, etc.

ANNEX C: Processing Plant Visits

Objectives

- To gain a commercial perspective on the NZ red meat processing industry from different viewpoints.
- To discuss how processing plants are responding to overseas regulatory and consumer requirements, including the role of audits and verification programmes.
- To see the working of NZ's modern processing plant.

Visit to Alliance Group Lorneville

Key points of note:

- The largest processing plant of its type in the world and the largest industrial site in NZ. 100% farmer owned co-operative business with around 4,500 members. Approximately 70% of supply comes from co-op members with 3,500 participating in a company run farm assurance programme.
- Farmers are paid for their stock on the day of supply.
- 4 sheep lines operate alongside each other on a two-shift system typically handling 28k lambs per day. During the recent drought period the plant was able to push up slaughter to 190k sheep per week for a 7-week period.
- The business has invested in robotic cutting technology to improve site safety and improve plant performance. The technology has lifted the yield and value taken from each carcase by up to 3% in some Alliance Group sites.
- Business has engaged in a performance improvement strategy to try and improve operational performance, pay better prices for stock and to try and capture more market value. The business hadn't changed in line with changing industry dynamics and was too heavily geared.
- The strategy is based around seven key pillars: co-operative principles, safety, build organisational capacity, low cost structure, farmer supply, capture market value and transform business shape.
- The business is moving away from being a commodity player to one adding value in new products and markets. These include Te Mana lamb (a high premium point of difference product targeted at food service) to the baseline Heritage Range.
- Te Mana was the result of a three-year research project that was jointly funded by Alliance and the Government, after initial development of 10 years by Alliance. Cameras and probes are used on the production line to measure pH, intra-muscular fat and other factors involved in flavour and eating quality. The data collected is shared with farmers producing lamb for the Te Mana range.
- The farm assurance programme covers all species entering the plant, is an ISO 17065 accredited scheme with independent audits. Audits are carried out every 18 months. 88% of co-op members are in the scheme, which is unique to Alliance and is a basic requirement to underpin the special raising claims project.
- The Special Raising Claims Project includes a number of dynamic market claims including 'raised without antibiotics', 'raised without hormones', '100% grass fed' and 'free range'.

The USA market is particularly attractive for product coming from animals raised without antibiotics.

- The plant has invested significantly in low temperature rendering to maximise the value of co-products, which make up to 20% of the value of the lamb.
- The plant also employs a chilled meat testing programme which has been successful in extending product shelf life up to 90 days.
- Alliance is selling 'antibiotic free' meat in the USA, which is lamb that has never received antibiotics in its life. While Alliance representatives understood concerns from the UK delegation that the term is misleading (i.e. suggests some meat being sold contains antibiotics), it is a commercial decision for them to exploit the fact the phrase is widely used in the USA and drives sales. Farmers supplying lamb for this market have to use a green ear tag as soon as an antibiotic is used, which does not mean the animal no longer meets base-line assurance standards but does disqualify it from special raising claims.
- Farmers are paid on carcase weight plus four categories of fat cover. There is no carcase conformation. All lambs are checked on farms by processor field officers who assess the quality of the lambs before loading, which results in very uniform carcases.

Visit to AFFCO South Pacific Meats Awarua

AFFCO, one of NZ's major meat companies, is privately owned by the Talley group who are also involved in other food products including fish, vegetables, ice cream and milk powder.

The company operates 12 sites throughout NZ. Total exports are approx. 150,000 tonnes, AFFCO exports to over 90 countries, with China being the key destination for many of its products. The company employs over 3,500 staff members.

The plant at Awarua is a single chain operation that exports to many countries, major export markets in Europe are Germany, Netherlands and the UK. The plant employs 420 staff and processes around 2,500 lambs a day. Throughput at present is low following the summer droughts, lambs need more time to reach the required weight.

They receive one or two audits from the UK customers each year to check/monitor compliance in plant and on some of the suppling farms. They have a wide variety of supply contracts, might be fixed price or schedule plus. MPI carry out operations in plant and there is full cost recovery – the costs of this are not passed back to the farmer, unlike the UK.

<u>Key points</u>

- Sees a challenge to livestock production as alternative land use, encouraging farmers off land.
- Plant has a huge focus on export, ensuring the plant meets the requirements of its customers across the globe.
- Shelf life of 90 days is achieved by focussing on all aspects of the processing chain.
- Lambs belly washed/full washed prior to slaughter.
- All lambs are halal slaughtered
- Bobby calf trade (between September and November) and 5th quarter returns important additional income to the business.

- Private assurance scheme – based on visits by fieldsman, 60-day residency period for stock. Does not appear to be as robust as UK farm assurance.
- Fieldsmen responsible for picking lambs on farms at all times, farmer has limited input, this helps ensure that vast majority of lambs meet required specification.
- Lambs specification is a combination of weight and fat thickness, no conformation grid.
- Lambs enter abattoir with document that covers animal transport and food chain information. Traceability is different from the UK, no individual recording.
- Transport is also covered by the companies own assurance scheme
- Over 1,000 different product specs in use for customers in over 100 markets.
- Farmer relationship – buying and selling of livestock
- Quite stringent H&S rules and obligations. All seem very committed to ongoing improvement in H&S performance.
- CODEX and OIE – science-based approach to addressing non-tariff barriers. NZ currently chair the meat inspection group – facilitated discussion on outcome-based approach.

Visit to ANZCO Rangitikei

The ANZCO Rangitikei processing plant is 15 years old after being built to initially service a customer based in the UK. In peak season about 6,000 lambs are processed a day over 2 shifts of 9.5 hours each. The kill pattern follows the grass curve, so peaks in December and is at its lowest level in February.

ANZCO has been 100% owned by Japan's Itohai Yonekyu since January 2018. It is the 5th largest exporting company in NZ, sending product to over 85 countries. Across all its divisions it employs 3,000 people globally and has a turnover of NZ$1.45 billion. The company considers there are 5 routes to achieving their company aims:

people, products, productivity, partners and planet = performance

The plant practises halal stunned slaughter. They are permitted by the NZ authorities to demonstrate stun recoverability to customers and halal bodies once a year with one sheep. It is stunned and allowed to recover, it all takes just a few minutes. Vet and halal certification body must be present.

Food Hygiene

- As with the other two processing companies, ANZCO emphasised that hygiene as crucial to permitting the 90-day shelf life.
- Lambs are washed on bellies and legs in the lairage to minimise contamination during processing.
- Many line positions on the line up to and during fleece removal to minimise contamination (up to 47 on the slaughter line).
- Steam vacuum is used on the fleece at about the 8th position on the line as the fleece is released from around shoulders and legs.
- Anal bungs are used when 'leaky' carcases are being processed.
- Lambs are 'emptied out' on farm – that is part of the company farm assurance standard
- Labels are available along the line, 'faecal', 'urine', for operatives to mark carcase if they spot contamination.

- Automated moving of carcases in chillers – reduces up to 15 people touching carcases as they are moved.

Automation

- Cutting room increasingly automated to a) improve health and safety by removing bandsaws, b) yield benefit – NZ$3-4 a head improvement, and c) provide more consistent product flow.
- Automated moving of carcases in chillers – reduces up to 15 people touching carcases as they are moved.

Livestock

- Farmer producer groups – provides a financial advantage to producer. Must meet transport and welfare criteria.
- Company farm assurance scheme that all producer suppliers must be in.
- Processor pays costs of scheme.
- Farmers can have direct contracts with ANZCO – price won't drop, but could be topped up if market prices rise.
- Pay on hot weight.
- No tagging of sheep.
- Uses company employed graders – ANZCO chooses to be assured by Quality Assurance.
- Once a year demonstrates that animals recover from the stun if left to do so.

Innovation

- Food Plus – a government scheme to help innovation and development of new products. The government will provide up to 50% funding, but the company then needs to share IP with wider industry.

Workforce

- NZ quota system for Pacific Islands – direct recruitment of, for this site, 30 unskilled workers a year who move to NZ, are immediately given NZ citizenship and are able to bring families. ANZCO provides support settling in – e.g. finding schools and helping children settle into school, opening bank accounts, establishing medical cards
- Those new workers are guaranteed 40 hours work a week for 52 weeks in the first year
- All staff have to pass drugs and alcohol tests as well as literacy and numeracy tests.
- ANZCO advertises locally and on NZ jobs sites, but finds it very difficult to fill posts with local staff.
- Do not lay off staff fully during the down season, keep all on a minimum wage all year round and reduce hours across both shifts rather than let night shift take impact of down season.

Commonalities between the three processing plants visited

- All plants had a shelf life of 90 days for all lamb products, although there were different approaches for achieving this. The main focus was on factors in the boning rooms and slaughter lines, but all stock is washed and given time to dry in the lairage, which also provides time for them to empty their stomachs.
- There is no legislation on dressing specification, but there is one agreed industry spec that most processors follow and openly state if they do not use.

- All the plants we saw paid on hot weight and to 0.1kg.
- The universal grading requirement was removed in 2000, meaning all plants grade carcases in a different way. For example, AFFCO was grading on fat only (H1-H4), as all lambs meet their requirements on conformation and weight due to on-farm selection by field reps. Most of the bigger plants use field reps to select stock; farmers cannot just send what they want.
- The standard halal certification requires all plants to perform a stun-recovery trial to satisfy the need to demonstrate that stunning does not kill the animal. A vet has to be present, plus representatives from two of the three halal bodies in NZ. Countries that require halal as part of their export certificate can also request seeing a lamb to recover from the stun during an audit, and the same officials have to be present for that.
- Staff recruitment and retention is an issue, and so the Government has systems in place to allow overseas workers from the South Sea Islands an NZ passport if they gain a job in an abattoir. ANZCO was recruiting staff directly from Samoa and trying to kill at least some stock all year round in order to keep staff (albeit on reduced hours in off-peak months).

ANNEX D: FARM VISITS

Visit to Blackdale Stud Farm Invercargill

The purpose of the visit was to understand how the farm has changed over the years and how their breeding programme is delivering for the industry.

Leon Black and family farm is an intensive sheep breeding operation, with sires going all over New Zealand, North & South America, Australia and the UK. Have recently used Elite Texel genetics from the UK. Blackdale stock is run at commercial 15 sheep/ha stocking rates.

Investing in high performing genetics with recording and breeding sales. Very professional operation with good ties back to UK and elsewhere, including ram sales to US, China and India.

Key points:

- Drought can be an issue. Approach is to kill lambs off when dry and no feed.
- Concentrates on grass growth. Good quality grass growth is the key. Grass is the main source of feed with some other fodder crops grown.
- On farm production of feed equates to 3 cent a kilo.
- Has been putting shelter belts back in on the farm. This provides shelter in the heat for sheep. Have found that sheep with shelter put on weight better than those without shelter. Different approach to the dairy industry who are removing shelter belts.
- A paddock approach to farming. Keeps it simple and makes it easy to move sheep around in order to manage the flock and maximise the grass growth.
- Not yet using EID for sheep but plan is to move to it in the near future.
- Every month reviews the lambs and only keeps the best. The idea is to only market the top quarter.
- Performance recording is critical to the business. Want to produce what the client needs. This may be fertility or growth rates or meat yield.
- Best performer was growing at over 600gms a day to weaning. This was exceptional and not the norm.
- Key message from the visit was the attention to detail and decisions based on numbers and performance rather than look.

Visit to Morrison Farming

The Morrison Farming enterprise which is a very large business and headed up by 4 family members. We were hosted by all 4 and were given an insight into the lower farming ground by Richard Morrison during a farm walk near one of the farms. We then travelled into the hills to their high ground to be given an insight from William Morrison on the enterprise there.

“I got from the passion of the Morrison family that they are continuing to invest where and when they can to improve their livestock, land, water, environment, biodiversity using a various of methods. We were all very impressed with the dedication and measured business risk taking to keep forging ahead with their business. This was one of the best farm visits I have been on and this family know exactly what they are doing and understand inputs and outputs.” – Jim Dobson, Dunbia

Key points:

- Sheep and cattle farm that massively expanded 15 years ago from a 150ha family farm by adding 1,000ha of hill country.
- The original farm (Fern Flats) is better land used to finish stock on kale, rape and fodder beet (cattle) and a plantain and clover mix (sheep), while the hill country farm (Mangara) is used for breeding stock. The brothers have been working hard to improve Mangara, including by spreading fertiliser via helicopter and establishing forage crops by spreading Roundup and then seeds by helicopter.
- The bulk of the questions aimed at William and Richard Morrison were around on-farm legislation and, like the vast majority of NZ farmers, both brothers were very much opposed to direct subsidies. They want their international customers to be the regulator, not the Government, and are against prescriptive laws or standards. They believe farmers know how to manage their land sustainably as, for example, stocking rates are self-regulating. They approve of a culture where farmers were encouraged to be better (through the Sustainable Land Use Initiative, for example) rather than being forced to beat an overbearing system. The only thing the Government should do, they said, was open new export markets and protect existing ones through biosecurity measures (and erect more mobile phone masts)

ANNEX E: Changes to NZ Subsidies and Regulation Q+A

Impact on rural communities?

- Rural Communities did suffer.
- Agriculture support had been capitalised into land values, there was a huge drop in land prices, and prices did then begin to rise but based on land productivity. There was more land use change and that dynamic is still about today.
- Gave Government a lot of work as a lot of counselling was required. Farmers new into agriculture with a big mortgage and a collapse in asset values had major problems. The banks were supportive, to some extent they had to be to save themselves as well. The response from Government was to provide a "state advance" for people who could demonstrate a credible way forward, the state effectively subsidised these businesses by keeping interest rate for these businesses at what they were previously paying.
- Rural support trust – lot of good people around who provided counselling and support.
- New start grants – NZ$45,000 to help those who wanted to leave agriculture make a new start elsewhere. That was a significant amount of money in 1984.
- Became very difficult to make a living on marginal land, the level of debt rose very quickly.
- Withdrawal of support also had a big impact on the meat processing sector with throughput cut significantly.
- In hindsight NZ could have done a better job to lessen the impact on rural communities.
- The reforms empowered women in agriculture; they were generally the ones with education as many wives had been teachers and nurses with formal education as compared to the men who generally left school to farm. The reform also meant that one of the partners needed to go out to work, this sometimes meant the man going off farm to work and the woman taking a much more active role in the farm business. Today the President of Federated Farmers (UK NFU equivalent) is a woman.

Was regulation removed at the same time as subsidy?

- Removal of agricultural support was one of the early parts of reform, some of the other elements did take longer to change. Some of the changes on regulation were not enacted for a further six years. You must demand all departments of Government take responsibility.

If you had your time again would you do things differently?

- Farmers felt angry because they felt they had suffered the "full monty" whilst other sectors had not been not treated as harshly.
- Regulation – An overly regulated industry generally breeds/needs more regulation. NZ should have moved quicker on deregulation, this should have started prior to 1984. Deregulation in the labour market should have been addressed sooner.

Views on the future?

- Very positive, growing population, Asia is where the growing markets are.
- Brexit – Panel were totally bemused by the vote.

How do you survive when your biggest competitors have support?

- No choice, just had to deal with it.

- Makes you closer to the consumer, the transition will be tough, but you will get greater consumer focus whilst EU farmers will still be receiving confused messages.

How long did it take to deliver stability?

- The period of real pain lasted for 12 – 15 years, things only really started to turn around after the Uruguay round in 1994 when market access was significantly increased for NZ.
- Consolidation will happen both at farmer and processor level.
- Land use change will happen, in NZ it has been the move into dairy.
- When market access was poor we had to make sure that we made use of every kg of quota to the EU and US, now with our market access around the world the EU quota has much less value, so we don't fill it any more.
- Removal of strict labour laws helped to improve the situation on farms.
- You never get stability in agriculture, just need to keep moving forward.
- Smart farmers did not take as long as others, there was a frenzy of innovation and entrepreneurship, not everyone was successful in adopting this strategy but not many people sat around feeling sorry for themselves.
- NZ principle - If the individual farmer is able to solve the problem then they should, beyond that the regional council should step on and beyond that Government should intervene.
- Change creates opportunity, must keep a focus on what you want to achieve and find the best way of achieving that.
- Today increasing environmental standards are the biggest challenge for farmers in NZ.
- Food safety is more important than anything, must focus on the outcomes.
- Every regulation adds cost; you must ask whether the consumer will pay for that cost.
- Regulation can be an attempt at protectionism.

ANNEX F: UK Industry Delegation

Name	Organisation
Alan Clarke	Chief Executive Quality Meat Scotland
Charles Sercombe	Chair of National Livestock Board NFU England
Dylan Morgan	Deputy Director and Head of Policy National Farmers' Union Cymru
Fiona Steiger	Deputy Director British Meat Processors Association
Ian Stevenson	Chief Executive Livestock and Meat Commission for Northern Ireland
Isla Roebuck	Former President Scottish Association of Meat Wholesalers
Ivor Ferguson	Deputy President Ulster Farmers' Union
Jim Dobson	Representative Northern Ireland Meat Exporters Association
John Dracup	Consultant Welsh Government
John Royle	Chief Livestock Advisor National Farmers' Union England
Kevin Roberts	Chair Hybu Cig Cymru (Meat Promotion Wales)
Dr. Phil Hadley	International Market Development Director, Agriculture and Horticulture Development Board (AHDB)
Scott Walker	Chief Executive National Farmers' Union Scotland
Joanne Briggs	Communications Manager, and Policy Officer for England National Sheep Association