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EXECUTIVE SUMMARY

The New Zealand beef sustainability Proof of Concept project has brought together representatives from across the value chain with an interest in demonstrating how principles of sustainable beef production could be applied on-farm and through processing to provide increased transparency and evidence of continuous improvement to a consumer.

Using the McDonald's supply chain as a test case, the project brought together six farms, four processing facilities and an added value facility. These areas worked collaboratively with the assistance of external expertise to understand what a sustainable standard looked like in their particular enterprise; how with an approach of continuous improvement they could achieve these standards; and how these standards could be independently verified by a recognised third-party.

This project coincided with the development by the Red Meat Profit Partnership (RMPP) of a supplementary sustainability module (NZFAP+) to the existing New Zealand Farm Assurance Programme (NZFAP) standard. NZFAP with its supplementary NZFAP+ was used as the foundation for farm level participation in the project. While the NZFAP+ standard for most part worked well in its application, an opportunity was identified to improve the clarity of definition of biodiversity being able to accommodate the unique characteristics and geographies of each farm. The definitions of biodiversity and its measures will be addressed as RMPP further refines the NZFAP+ standard. AsureQuality undertook the third-party verification across the six farms with all demonstrating general compliance.

At the processor level, standards were developed in alignment with the Global Roundtable for Sustainable Beef (GRSB) principles and criteria for sustainable beef deemed material by the project team. Once standards were agreed, the project team undertook an equivalency review of existing verified assurance programmes common to New Zealand processing facilities and developed an efficient process for processing facilities to seek recognition for existing programmes. There was a general level of equivalent compliance in the themes of animal welfare, people and the community being independently verified through various standards and programmes. Activity in environmental stewardship appeared less included in existing standards, specifically efficient use of water, reducing solid waste to landfill and reducing the carbon footprint. Facility specific action plans were developed by participating processors to meet the requirements of the standards not currently addressed through existing standards and these were third-party verified by Ausmeat.

Pre-competitive cross-functional collaboration between project participants to deliver project objectives has been key to the success of the project. As the project is complete this ongoing cross-functional collaboration is committed to support growth and extension to scale programmes to deliver improved transparency and verified progress to underpin the sustainability of New Zealand beef.

Future opportunities will likely be determined by the newly formed New Zealand Roundtable for Sustainable Beef (NZRSB) in conjunction with the Red Meat Profit Partnership (RMPP).

SAM BUNNYFARM BUSINESS MANAGER RANGITIAKI STATION, OWNED BY PAMU

8,300 ha

Central Plateau, 30 mins from Taupo

Why did you participate in the Proof of Concept project?

What they were trying to do lined up with what we were trying to do as a business and a farm. It was something I was really passionate about and I think it's something that's really valuable for the industry. One of our values is to be industry-good — we love to help out where we can but also to learn about what they were trying to do.

Describe what the NZFAP+ audit was like?

I probably didn't do enough research prior to the audit so I didn't quite know what to expect when they arrived so we learnt as we went and quickly got a sense of what they were looking for, especially around the environment and sustainability. It was different to other audits and I found it really interesting. I loved the fact we able to tick most of the boxes but it was also a really big learning curve on some of the stuff we weren't able to tick that was important to them and so that's helped me with our strategy for the future.

What did you like best?

The way they involved us in the actual make-up of the audit. Inviting our feedback was good as well as learning what, from a consumer end, might be valuable to them.

What did you take away from the NZFAP+ audit?

There are lots of things in our environmental strategy that were either reconfirmed or that we knew in terms of the specific challenges to Rangitiaki, things like shade and shelter for our animals and some of our critical source areas with water run-off and where those are and what we're doing about them. It was really cool to see so many of the different processing companies and some of the industry bodies wanting to work together on this as well. Hopefully we can join at the hip on this as a collective and promote it across the industry.

What would be helpful for others to know before considering NZFAP+?

Get yourself a land environment plan, work with your regional council on the strategy for your catchment and put the environmental strategy for your property at the very top of your priority list because it's definitely the future. It's what the consumer's driving but it's also what the world requires.

You don't have to be there today, but you have to be showing that you're on a journey of improvement so create a plan for that. This is a really good way of doing it – jump on board to this NZFAP+ programme because it's a good way of auditing where you are today, setting your goals and strategies for the next few years and then you can re-audit yourself to see how you're progressing.

What does sustainable beef mean to you?

Sustainable beef to me means producing high quality beef in a way that is looking after the land and that the animal had a good life and grew well and was well-fed on grass. It's also about having good people who enjoy their jobs and are well looked after and involved in growing those animals. Environmentally you're hopefully improving every day, so you're better tomorrow than you are today. That's around your soil and your water, your trees, your carbon footprint and your nutrient loss. To sum it up, it's people, environment and animal welfare and doing the right thing in those three spaces. The fourth part is promoting that to the consumer.

Why is sustainable beef important to your family/operation?

It's important because the consumer is going to demand it at some point in the future so we'll need to be there because it will become the new norm - if you're not there then you'll fall behind. The main thing is how do we grow beef while looking after our environment.

9,000

EWES

8,000

HINDS

1,200

BEEF COWS

4,000

FINISHING BULLS PER YEAR

1,500

TWO YEAR
FINISHING STEERS

WHY THE PARTNERS INVESTED IN THE PROJECT

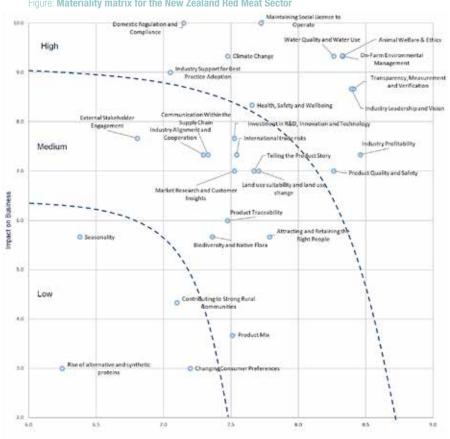
The Proof of Concept (POC) project was developed as an extension of the collaborative work undertaken toward the formation of the New Zealand Roundtable for Sustainable Beef (NZRSB).

Internal and external stakeholders were engaged through interviews and focus groups, and the top identified issues were ranked by importance and business impact, to form a materiality matrix. In addition, stakeholders identified priority areas for future work, examples of companies that are primary sector leaders, and metrics that should be tracked and managed in the future.

Of the 11 priorities identified as most important, the Proof of Concept project addressed in part nine of these namely:

- Domestic regulation and compliance
- Industry support for best practice adoption
- Maintaining social licence to operate
- · Health, safety and wellbeing
- · Water quality and water use
- Animal welfare
- On-farm environment management
- Transparency, measurement and verification
- Industry leadership

Most interviewees in the materiality research stressed the need for measurement and verification of progress, to provide transparency to customers and the public.



Stakeholder Importance (all stakeholders)

Figure: Materiality matrix for the New Zealand Red Meat Sector

WHY THE PARTNERS INVESTED IN THE PROJECT

In general, while there were some differences in issues raised by internal and external stakeholders, many issues aligned. Stakeholders noted that consumers are demanding more and more transparency and progress on environmental and animal welfare issues, and that dietary changes (towards vegetarianism/veganism) were seen as an important trend. Despite this, the industry was seen as being well-positioned to make huge economic and environmental contributions to New Zealand. Having industry alignment, leadership, and strategic vision was seen as a key part of taking advantage of these opportunities.

The top issues identified by stakeholders as priorities for the sector to address were:

- Industry profitability
- · Industry leadership and vision
- · Transparency, measurement and verification
- Investment in R&D, innovation and technology
- Maintaining social licence to operate

The top areas identified where the sector could make a positive difference to society were:

- Being good stewards of the land, ensuring future generations will be able to live off the land as we do today
- Being a strong contributor to the economy, ensuring a prosperous society in New Zealand
- Showing the sector's commitment to transparency by measuring and verifying environmental impacts

You can read the full report on the RMPP website: https://www.rmpp.co.nz/page/our-research/

McDonald's is one of the largest buyers of beef in New Zealand and around the world, and it takes seriously a responsibility to help lead the industry toward more sustainable production practices. McDonald's is committed to working collaboratively with industry and stakeholders from across the supply chain to drive wider collaboration and action that demonstrates production of beef that is environmentally sound, protects animal health and welfare, and improves farmer and community livelihoods.

In partnership, ANZCO Foods, Beef + Lamb New Zealand, Fulton Market Group, Greenlea Premier Meats, McDonald's and Silver Fern Farms believed undertaking the Proof of Concept to demonstrate delivery of a portion of beef supplied through the McDonald's supply chain in alignment with the verified sustainability programme would accelerate learnings and identify future opportunities that would help the industry to address some of the key findings of the materiality review.

RICHARD SCHOLEFIELD GENERAL MANAGER WHANGARA FARMS. **GISBORNE**

Why did you participate in the Proof of Concept project?

We participated because we'd already been involved with McDonald's on a similar previous project and it led straight into this one.

Describe what the NZFAP+ audit was like?

I think it was great. We'd already been through the FAP one without the plus and this is a next step. It was pretty painless; we were well set up anyway but it did identify a few things that we needed to look at, including the greenhouse gases and biodiversity areas that we hadn't really done much work on. We mention them in our land environment plans but we need to do a bit more work so I think it was really good.

It was two-way. I think we had a good discussion and I think that's where you get value. You can be fully compliant in some areas and working towards that in others and they will give you some recommendations on the areas you need to look at. It will give farmers the opportunity to improve and achieve the standard.

What did you like best?

The give and take – the two-way communication.

An understanding of what I think we need to do to satisfy our consumers. The land environment plan that we have needs to be a living document and be constantly improving. I think as regulation and compliance requirements change, we need to change with it. We need to look at our biodiversity, we need to analyse that and extend that in our land environment plans as well as needing to look at our greenhouse gases.

You get to have the feel-good thing but also, you know you're doing the right thing: you're fencing off that waterway, you're retiring that little marginal block that you've always in your heart of hearts known you shouldn't be farming. That's the positive things that can come out of it.

This business is proof that if you focus on your better land and drop out your poor performing land, you'll find you won't lose any money.

What would be helpful for others to know before considering NZFAP+?

Maybe some information on the requirements so you've actually got some stuff ready. Most farmers have got it but it may not be easily at hand. I think it's more that farmers aren't intimidated by it and actually have a go at doing it - you might not achieve it but then you'll get a blueprint of what you need to do to do it.

One of the questions we asked is, 'Who do you go to talk to about biodiversity, who can we get to come in and do a biodiversity plan for us?'. The councils are strung out, they can't do it, who's actually in that space?

What does sustainable beef mean to you?

For me, in my role as manager of a Maori incorporation, we're here forever so sustainable takes on a whole new meaning. So for me, sustainable beef is basically to have systems in place that we can be providing for the future generations of shareholders in this land because this land is always going to be here. They're always going to be in the business of farming so by default that will be sheep and beef so basically we're profitable and sustainable.

We're intergenerational. We're here forever and it's not a matter of whether we would like or want to be sustainable, we have to be sustainable for future generations and that drives a lot of the policies, making sure that if you take a key person out of this business, if I leave or whatever, there's systems and policies in place that future-proofs it and mitigates that risk.



9,500

East Coast 30 mins North of Gisborne

85,000 STOCK UNITS

35,000

EWES

9,000

EWE HGTS

3,000

ANGUS COWS

2,500 2,500 **R2 YEAR**

CATTLE

R1 YEAR

CATTLE

7

PROOF OF CONCEPT STRUCTURE

2.1 PROJECT SCOPE

- A. The intention of the project was to demonstrate the concept that beef could be taken through the full supply chain from farm, into processing units and finally into beef patty production being verified in line with sustainability expectations by a credible third-party at each part of the process. The project additionally set out to quantify beef that was successfully converted through the supply chain programme into McDonald's restaurants on a mass balance basis. An agreed accounting process was developed that enabled the project team to report on the number of sustainable animals processed and the kilograms of sustainable beef raw material produced through each processing facility. The process also enabled that raw material supplied into further processing facilities under mass balance principles to be reported. Ultimately McDonald's has been able to translate the impact of this small-scale Proof of Concept pilot into the equivalent number of cheeseburgers it has produced.
- B. The on-farm verification was initially intended to be whole of life however this became a challenging point for the project as some animals could move between three or four farms in their lifetime across beef and dairy farm systems. Establishing the challenges of whole of life traceability across multiple farms was an important learning from the project. A decision was taken for the purposes of the Proof of Concept to concentrate on the last farm of residence (under the NZFAP standard animals have a minimum residence timing of 60 days on their last farm of residence to qualify as NZFAP approved which is also the base for the NZFAP+ standard. Where an animal comes from a NZFAP approved farm this residence timing is reduced to 20 days).
- C. In pilot scope (focus on the key supply chain steps to gain the greatest insights)
 - Beef breeding and finishing farms
 - Beef processing facilities (slaughter and boning)
 - Beef further processing facilities (patty processing)
- D. Out of pilot scope (areas not covered in the Proof of Concept)
 - Feedlots (there is only one commercial feedlot in New Zealand which finishes a specialist product, mainly for the Japanese market)
 - Sales yards
 - Livestock transport
 - Product transport and storage
 - Feed
- E. The aims of the Global Roundtable for Sustainable Beef (GRSB) provided guidance for the project including producing socially responsible, environmentally sound and economically viable. The five foundation principles provided structure for the project:
 - Natural resources

Responsible resource management and ecosystem enhancement.

People and community

Protects and respects rights and recognises the critical community role of the beef industry.

PROOF OF CONCEPT STRUCTURE

E. • Animal health and welfare

Respect for and managing animals to ensure their health and welfare.

Food

Safe and quality beef products.

Efficiency and innovation

Encourages innovation, optimises production and reduces waste.

2.2 VERIFICATION

- A. AsureQuality was chosen to verify the draft NZFAP+ standard. AsureQuality undertook a review of the standards and developed an audit checklist. The audit checklist and the standards were shared with all the participating farmers before an onsite audit at each farm. A report was prepared for each farm identifying areas of compliance and areas for continuous improvement.
- B. Ausmeat was engaged to verify compliance of participating processing facilities with the processing standards.

2.3 CHAIN OF CUSTODY

Proof of integrity as the product moves through the supply chain

Chain of Custody refers to the process used to track cattle from the farms where they are born through the beef supply chain to the plants where they are processed.

The initial goal of the programme was for a fully verified supply chain from paddock to plate that would include cattle sourced from verified operations from place of birth. In reality with the small sample size of operations participating in the pilot, this was not feasible. For the Proof of Concept programme, cattle were required to spend a minimum of 60 days on their last farm of residence to qualify as NZFAP+ approved which is also the base for the NZFAP standard. Where an animal comes from an NZFAP+ approved farm this residence timing is reduced to 20 days.

A process was developed to track cattle from participating farm properties to processing units. This involved using the animal status declaration supplied with live animals into the verified processing units.

The portion of raw material generated through the Proof of Concept programme was supplied to ANZCO Foods Waitara for production of McDonald's finished product and was tracked using a mass balance model for Chain of Custody. This approach was in line with ISEAL Sustainability Claims Good Practice Guide. The Chain of Custody model used has implications for the level of confidence that a product contains verified material, and therefore affects the type of claim that can be made. The claims cannot overstate the model. Other examples of models are physical segregation, identity preservation and certificates.

Monthly Reporting Model: Verified Supply Chain



SAM SPIERSAPLINE PASTURES, CANTERBURY AND TARRAS

Why did you participate in the Proof of Concept project?

It provides an opportunity for our farm to be part of an internationally recognised group of farmers, processors and customers who are looking to the future of the beef industry.

Describe what the NZFAP+ audit was like?

Talking to an independent qualified person about your farm is very worthwhile — they challenged our thinking and offered guidance as to how to manage various parts of our operation. It was an enjoyable day and something we all often refer to in our management meetings.

What did you like best?

It wasn't a typical audit – the auditor was there to understand the farm and offer some ideas. It was also good to see some reference to future compliance issues such as carbon budgeting as this provided us confidence that a group such as this will support each other in understanding how to meet these goals in the future.

What did you take away from the NZFAP+ audit?

We need to move to a 100% digital system for record keeping. This work is now underway.

What would be helpful for others to know before considering NZFAP+?

It's important to have an open mind and have confidence that the process will support your farm move towards the future and stay relevant to the customer – something all farmers should be thinking about!

What does sustainable beef mean to you?

A production system that improves the environment that we farm — this includes all things land, water, animals and people.

Why is sustainable beef important to your family/operation?

We are generational farmers and we want to ensure our children have the opportunity to continue to farm in the future. Having an independent form of measuring our sustainability performance against a high standard that is understood by customers is critical. We are desperate to ensure we stay relevant and proud beef producers.



770 ha

Lindis Crossing, Tarras, 25 mins from Wanaka

We are a farm that annually finish:

15,000 LAMBS

2,500 CATTLE

PROOF OF CONCEPT ACHIEVEMENTS

3.1 SUPPLY OF VERIFIED BEEF

As at the end of June 2020, 527 head of cattle had been sourced from the six participating farms and processed through four verified processing facilities. This translates to 89,000kg of carcass weight. Of this beef raw material, 11,759kg was supplied to McDonald's to be used to produce beef patties for the McDonald's system including restaurants in New Zealand. USA, Taiwan, China and Malaysia.

2,849kg of raw material sourced through the Proof of Concept project was supplied to the ANZCO Foods Waitara value add facility resulting in the production of 62,800 McDonald's cheeseburger beef patties equivalents sourced through a fully verified supply chain programme.

3.2 GRSB PRINCIPLES & CRITERIA BROUGHT TO LIFE THROUGH A LOCALLY RELEVANT, OUTCOME-BASED INITIATIVE FOR BEEF SUSTAINABILITY.

The Proof of Concept project has enabled:

- Collaborative engagement across multiple stakeholders to develop a whole of value chain beef sustainability programme that aligns the New Zealand beef industry with the GRSB principles and criteria.
- Development and road-testing of a credible third-party verification process that seeks to recognise equivalence and is realistic to be scalable for broader adoption.
- A chain of custody that can track cattle across verified operations at each part of the supply chain
 to enable mass balance reporting of the portion of verified beef used in a finished product supplied
 to a consumer.

3.3 SUPPORTED AND ACCELERATED INDUSTRY-LED BEEF SUSTAINABILITY

McDonald's, ANZCO Foods, Silver Fern Farms, Greenlea Premier Meats together with Beef + Lamb New Zealand started a journey together that will continue as active members of the New Zealand Roundtable for Sustainable Beef.

To accelerate the industry's efforts, the Proof of Concept:

- Created a practical sustainability verification model
- Assessed the value and ease of leveraging existing programmes and industry resources in meeting the GRSB's principles and criteria
- Tested a programme that if scaled could be inclusive of all participants regardless of their size, sector
 or geography
- Provided feedback and support to RMPP to develop the NZFAP+ standard
- Generated momentum and interest through stakeholder engagement and broad industry participation
- Connected end user customer, farmers, processors and an industry body in a transparent, constructive and enduring way.

DANI & ANTHONY DARKE RIDGEWAY FARM, ARIA, KING COUNTRY

Why did you participate in the Proof of Concept project?

If there's going to be a group of farmers who are seen to be doing the right thing then we want to part of that group. We want to play by the rules and front-foot this, not get tied up by legislation, and find the opportunities that are out there.

We need to do a really good job of telling the story and differentiating ourselves from what else is on the market because it's so different to what else is being offered out there globally.

Describe what the NZFAP+ audit was like?

It was quite in-depth in that it dug into all aspects of our business and demanded that we record stuff for a whole range of things we'd never recorded before. It was hard to see the validity of some of the stuff they were after sometimes, like how many crayfish we've got in the creek, and I pushed back a bit at the start.

But there's definitely a positive in that it gives you a sharper focus on what's going to be important in future and trying to figure out how we farm profitably in a way that is more sustainable

It's not necessarily about have you achieved all this, it's about where are you on the journey. The standards are set quite high.

What did you like best?

We were each buddied up with a person who helped us through getting our farm up to standard so I think a critical part of it was having that support.

A slack channel was set up online so for each part – including biodiversity, safety and the farm environment plan – there was a whole lot of information and there was support. You could communicate with other people going through it, so it created a bit of a community. We had Zoom meetings and little online workshops too.

What did you take away from the NZFAP+ audit?

It was giving a sharper focus on what consumers are wanting on farms. There's a whole lot of stuff we have to do to keep ahead of legislation and we've got to do that and opportunities will be there for people who are ahead of that and, conversely, people who are laggards will get cleaned up.

I guess when I pushed back when we first got involved, their answer was, well here's McDonald's, they're here, they are the consumer.

What would be helpful for others to know before considering NZFAP+?

It's quite a bit of work. I do believe it's the right thing to do because I know that with legislation and policy changes, we're going to have to do this stuff so I think it makes way more sense to me that we be involved with something that's more market-led and more driven by us than something that we're forced to do and is more prescriptive.

What does sustainable beef mean to you?

It's a non-negotiable that future generations, whether they're my family or not, can continue to farm this land and make a living off it. We've got to leave this land in a better place than we found it.

Why is sustainable beef important to your family/operation?

A lot of it is leaving a legacy. I'd love to think that in 100 years people will say, 'In 2020, they had the foresight to fence off this bit of bush and we're still enjoying it today'.

When we fence off our wetlands and plant them out, then they become areas we're quite proud of and enjoy as opposed to previously when they were traps for stock. They become a real win-win.



412 ha

70
MA COWS

IVIA GOVVS

1,500 EWES

450
EWE REPLACEMENTS

430 BULLS

Focus on bull beef for the grinding market and have 75 cows for the prime market

WHAT THE PROJECT TOLD US

The small-scale pilot confirmed that cattle on participating farms and participating processing facilities were being raised and processed with responsible and sustainable outcomes, with a widespread commitment to continuous improvement.

4.1 COMMON PRACTICE THAT DELIVERED ON THE PILOT'S INTENDED OUTCOMES

- At the farm level, the verification process showed that farm systems were recorded and good practices were undertaken.
- The base NZFAP standard is widely established in New Zealand especially within lamb production and farmers are disciplined in adhering to standards, record keeping, audits and continuous improvement.
- At the processor level, and once the equivalence work had been worked through, (taking into account
 the existing compliance standards and audits) the process became straight-forward with processing
 plants compliant in animal welfare and people and community.
- At both the farm and processor level, the attitude of the participants was positive with all parties
 wanting to understand the standard and how to achieve the required level of compliance. The
 farmers in particular wanted clear feedback in terms of performance and identification of any areas
 they could improve.
- Where producers had a Level 3 Farm Environment Plan (FEP) the on-farm process to demonstrate alignment with NZFAP+ was straight-forward.

4.2 THE BIGGEST OPPORTUNITIES IDENTIFIED FOR IMPROVEMENT

- Biodiversity was the largest gap in the verification with the audit standard not providing a clear basis
 of what good biodiversity looked like and how it was measured. The biodiversity area required greater
 clarity in the compliance definition with this being defined in such a way to accommodate the differing
 biodiversity aspects unique to each property. All six Proof of Concept farms were able to identify,
 define and measure biodiversity when the area and its measures were adequately explained.
- The degree of the proposed riparian setbacks was a discussion point during the
 audits and thought in some cases by producers to be onerous. The recent announcement by the New
 Zealand government of the mandatory regulations surrounding riparian margins will form the future
 standard for NZFAP+.
- The specific testing of cadmium levels was questioned by the farmers in terms of the rational for this to be undertaken. Following further discussion on the standard, the testing of heavy metals will continue to be a criterion.
- A farmer having a current Farm Environment Plan (FEP) is a pre requisite for the NZFAP+ base standard. During the project it became apparent that there is considerable variation in the standards of the FEPs depending on who the particular consultant was. Although the FEPs should be broadly equal it seems they are not. It is not the role of this project to resolve this issue, however it is important it is noted.
- The requirements of different regional councils raised inconsistency with the project in that different standards are being applied by different councils in respect to measures and the environmental impact of farming.
- Development of an environmental action plan to formalise processor measurement and continuous improvement priorities in the areas of decarbonisation, efficient use of water, and reducing solid waste to landfill provided a simple way to fill the gaps that were identified between the processing sustainability standard and existing programmes.



WHAT WE LEARNT FROM THIS PROJECT

5.1 LISTEN AND LEAD

- Engage a coalition of the willing from multiple industry organisations that share the same passion, vision and drive for success.
- Listen to the skeptics as well as the supporters. The more we are challenged during the development process, the stronger the results.
- Make tough decisions regarding the project scope early so objectives are attainable.

5.2 BUILD A COMMUNITY AND COLLABORATE

- Emphasise that sustainable beef is not about an individual customer supply chain, but rather it is about the entire New Zealand beef community. Sustainable, responsible beef production should be an industry standard, not a competitive differentiator.
- Embrace existing programmes and understand how they contribute to the desired outcomes.
- Align with the GRSB Principles and Criteria. Inform the broader New Zealand beef community on progress and insights.
- Collaboration has been achieved through clear direction, being transparent and holding members to account.

5.3 PROGRESS OVER PERFECTION

- Actively seek ongoing improvements throughout the process across all aspects of the work, including standards, verifications, chain of custody tracking and communication.
- Be comfortable making changes at any point in the process when it makes sense to do so.
- When a barrier or a blockage presents, proactively do what it takes to fix problems and learn from each experience.

MARTIN COUP SHEEP AND BEEF FARMER AT ARIA, KING COUNTRY

800ha which includes: 120ha Biodiversity and 680ha Grazing

Why did you participate in the Proof of Concept project?

This project took all the things going on around farm environment plans at the moment to the next level and was quite leading edge. I'm involved in rural leadership in New Zealand and I really wanted to understand why they were doing it and understand what our future might look like as beef farmers to help inform some of my decisions.

Describe what the NZFAP+ audit was like?

It was quite lengthy and quite involved and probably made me think about some extra things that I need to think about, mainly biodiversity and healthy soils. There's a lot of stuff you have to do to tick all the boxes.

I already had a farm plan, all my health and safety management is up to spec and I've got contracts for my staff, but I think if you hadn't done anything would be a very lengthy process.

What did you like best?

Just getting that understanding of what a full-on farm plan may look like and what our future might look like and starting to tick some of those boxes along that path.

What did you take away from the NZFAP+ audit?

An understanding of what I think we need to do to satisfy our consumers in the future. I want to make sure that this is driven by the consumer and isn't just because someone in Wellington or at the processor level wants it because it's a nice thing to have.

What would be helpful for others to know before considering NZFAP+?

Understanding why we need to do this. Are we doing it for the consumer or is it because someone somewhere has decided that this is what farmers need to do for whatever reason?

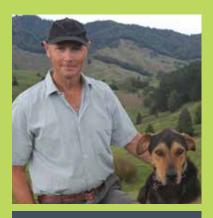
Historically farmers have had their farm plans and animal health plans in their heads but they never write them down so really a lot of this process is just formalising that and having a place to hold that information so that if a consumer asks if you are a sustainable farm, then you're holding that information in a place that's not your head.

What does sustainable beef mean to you?

Looking after your land, your people and your animals. It's about looking after your rural communities and making sure you're ticking all those boxes so that your business can go into the future. Profitability is in there as well because you can't do all these things without profitability.

Why is sustainable beef important to your family/operation?

It is about valuing those things that are important to us as farmers, leaving our land in a better state, it's about looking after our animals so they're healthy throughout their lives and looking after our people, our staff and our community. To me it's about what we value as farmers, and what are the things are that are really important to us.



800 ha

Predominantly hill country 90min south of Hamilton

350

BULLS

150

COWS

2,600

EWES

850

HOGGETS

Director of
Beef + Lamb New Zealand
and the
New Zealand Meat Board.

RECOMMENDATIONS FOR SCALING AN INDUSTRY SUSTAINABLE BEEF PROGRAMME

- It is recommended the industry continue the great work to date on the NZFAP+ standard and support its commercialisation.
- Continue to evolve the NZRSB to develop a measurable framework specific for New Zealand sustainable beef production that will ensure ongoing relevance of standards and verification process and enable them to demonstrate their effectiveness to drive continuous improvement.
- Work through the NZRSB with a strong producer voice to further develop the value proposition for sustainable beef programmes and enhanced industry transparency around its practices and impacts.
- Have a long-term plan to extend sustainability programmes to whole of life verification rather than the last farm of residence.
- Identify an appropriate industry sponsor for processing standard and don't focus on the farm standard in isolation.
- With more than half of New Zealand's beef being sourced from dairy, developing a stronger and more proactive dairy linkage is required for completeness.
- Make it easy for participants in the future to trial their involvement in the programme without being required to do everything.
- Seek efficient ways using technology to verify sustainable outcomes through objective
 measurements in favour of prescribed practices. An outcome-based approach is not easy;
 however, it allows for innovation that does not occur when a practice is prescribed.
- Anchor on one standardised method to track Chain of Custody so that all members of the New Zealand beef community can participate on equal footing.
- Continue to collaborate and embrace multi-stakeholder input.
- Avoid duplication.

RICK BURKE AND JAN LONEY PUKEKAURI FARM, KATIKATI, BAY OF PLENTY

Mixed contour from flat, rolling to very steep with a number of fresh water streams flowing through the farm coming from the Kaimais.

Why did you participate in the Proof of Concept project?

We felt we were up to the mark; we'd done our environmental plan to Level 3 and we knew we were carbon neutral. We have a pretty comprehensive animal health plan so we thought we'd be up for the task. I think it's the way we need to go for the future of the New Zealand red meat industry.

Describe what the NZFAP+ audit was like?

It's really opening up your books for the auditors around environment, fresh water, biodiversity, animal welfare and what you're doing with your community and staff. It's good for a couple like Jan and me to see where we sit in amongst that and we came through with a pretty good rap at the end of the day so we were pretty happy with that. There's always more to do and we learnt a lot from the process.

What did you like best?

The best part was being involved with the farmers from around New Zealand and getting to know them, seeing what they're doing and how they're operating their farm systems, what they're doing environmentally and that's really powerful – you always take home some key messages that you can implement on your own farm.

It wasn't a top-down thing, a regulatory approach, it was more about an educational awareness process and helping farmers to go on a journey. We're lucky, we're a fair way down that journey but for farmers starting out on the process, it'll be all about a continuum, about understanding what the vision of success looks like and working through a process.

What did you take away from the NZFAP+ audit?

The need to have information on biodiversity in the farm, especially in fresh water, all together. We were doing that through our catchment projects but we weren't actually recording biodiversity so we just had to have it available.

One of the challenges for the older farmers is changing from our old-school record keeping to putting things on your phone and it's there straight away in a flash. We've just got to be a little better at that. I think the younger generation will be all over this and they can see the vision a lot clearer than us old-school buggers sometimes.

What would be helpful for others to know before considering NZFAP+?

A lot of farmers have that information captured already. The next part is doing a land environment plan and that's to get ahead of regulation, to take control of your own destiny so once they've done that, they're nearly there.

Once you capture the information, you're there — it's not that onerous and you are in control of your destiny and you're not going to be scared of regulation because you've got it all nailed. It's not to be feared. It's about being open — they're not criticising you at all, it's where you are and they give you steps to how to get to where you should be.

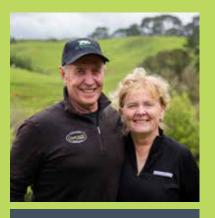
What does sustainable beef mean to you?

We were early adopters of the environmental farm plan back in the mid-90s and from understanding what that looks like and the wins round that, it's just a natural progression to look at how you can farm your landscape sustainably with livestock on them. That's giving the animals a really good life but also understanding how you optimise soil health as well, responsible fertiliser use and grazing management to ensure you can grow as much dry matter as possible.

Why is sustainable beef important to your family/operation?

It is our life really and that means we are very proud of our product – you can guarantee that the meat coming off Pukekauri Farm is grass-fed and grown to its maximum capacity and it's nice meat.

The ultimate for us would be a Pukekauri label to go with one of the meat companies right to the market place, for someone in a restaurant to see how we're farming our landscapes and watch a little video before they consume our lovely, juicy steak (or a nice sausage!). Everything's intrinsically linked, if you think about the environment, what you do with your fresh water, your biodiversity and that runs on to running a sustainable beef operation and thinking about how you can do that and tell that story with integrity and honesty and we'd like to see that story portrayed in the market place.



300 ha

Just south of Katikati up against the Kaimai Ranges

200 R1 BIII I S 40 82 BULLS

50 R1 STEERS 30 R2 STEERS

40 R1 DAIRY HEIFERS

300 BREEDING EWES

Winners of Bay of Plenty Ballance Farm Environment Award in 2014.

> Rick is Chairman of Farmers 4 Positive Change.

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LINK LIST

New Zealand Roundtable for Sustainable Beef (NZRSB) website:

https://www.nzsustainablebeef.co.nz/

Red Meat Profit Patrneship (RMPP) website:

https://www.rmpp.co.nz/

Global Roundtable for Sustainable Beef (GRSB) website:

https://grsbeef.org/

Global Roundtable for Sustainable Beef (GRSB) Guiding Principles:

 $https://grsbeef.org/Resources/Documents/GRSB\%20 Principles\%20 and \%20 Criteria\%20 for \%20 Global\%20 Sustainable\%20 Beef_091514.pdf$

New Zealand Farm Assurance Programme (NZFAP) and NZFAP+ standards:

https://www.nzfap.com/

McDonald's sustainable agriculture

https://corporate.mcdonalds.com/corpmcd/our-purpose-and-impact/our-planet/sustainable-agriculture.html

Proof of Concept video:

https://www.youtube.com/watch?v=wkQY3hulLAk&feature=emb_logo

APPENDIX 1

Principles	GRSB	NZFAP+	NZFAP
People and the Community			
Companies and individuals throughout the beef value chain respect human rights in accordance with the UNGPBHR1 through policies, regulation and due diligence.	✓	×	×
Business is conducted with integrity, in compliance with applicable laws and regulations. Businesses throughout the value chain positively engage with and support the local community.	1	1	×
A safe and healthy work culture is adopted, supported by training and appropriate equipment to reduce the risks to all in the beef value chain.	✓	1	×
Employment provides for the legal minimum wage (where applicable), and opportunities for career development, where possible, are made available throughout the value chain.	✓	1	×
The cultural heritage and way of life of all parties are recognised and respected throughout the value chain.	✓	×	×
Land and property rights are acknowledged and respected throughout the value chain.	✓	×	×
Natural Resources			
Environmental stewardship objectives are attained through adaptive management, with activities monitored to achieve continuous improvement of measurable natural resource management outcomes.	✓	1	×
Practices are implemented to improve air quality.	✓	×	×
Net greenhouse gas emissions from the beef value chain are minimised on a per unit of product basis	✓	×	×
Native forests are protected from deforestation. Grasslands, other native ecosystems, and high conservation value areas are protected from land conversion and degradation.	✓	1	×
Land management practices conserve and enhance the health of ecosystems and high conservation value areas throughout all sectors of the beef value chain.	1	1	×
Water resources (including quality and quantity attributes), are responsibly and efficiently managed to support ecological function and availability.	✓	1	×
Soil health is maintained or improved through implementation of appropriate management practices.	1	1	×
The beef value chain contributes to the maintenance or enhancement of native plant and animal biological diversity.	1	1	×
Where available, feed sources are sustainably-produced.	/	×	×
Animal Health and Welfare			
Adequate feed and water are provided to meet cattle's physiological needs. Diet composition is balanced to promote good health and proper body condition. Animal caretakers recognise signs of malnutrition and take appropriate action to maintain condition and correct deficiencies.	✓	1	✓
Animal caretakers provide cattle with health care, in addition to identifying health problems and taking appropriate action to control and treat disease.	✓	1	1
All veterinary pharmaceuticals and vaccines are used responsibly and in accordance with labeling.	1	1	1
Appropriate action is taken to minimise undue pain, injury and disease, and to address any of these problems when identified. A competent person is available to make prompt diagnoses to determine whether sick or injured cattle should receive additional care or be euthanised. In the interests of continuous improvement, alternatives and innovations are investigated and, where practical, are adopted to replace or mitigate painful husbandry procedures.	√	1	1
Good animal welfare is ensured, including the freedom for cattle to express normal patterns of behaviour. Animal caretakers should minimise cattle stress, and recognise and react appropriately to signs of stress.	1	1	1
Cattle are kept in an environment (including stocking density, air quality and surfaces), which is conducive to good health and normal behaviour and minimises physical discomfort.	/	/	1
Transport (by land, sea or air) and handling procedures are consistent with OIE guidelines.	✓	×	×
Animal welfare procedures at processing plants, including slaughter procedures, are in line with the OIE terrestrial animal health code.	1	N/A	N/A
Food			
Food safety is ensured through the development, adoption, documentation, maintenance and, where applicable, third-party validation of practices throughout the value chain. This includes the prompt resolution of all cases of food safety contamination.	✓	1	1
Beef quality is ensured through the adoption, documentation, maintenance and validation of management systems throughout the value chain. All reasonable efforts are taken to ensure the quality of beef and co-products to participants further down the value chain.	✓	×	×
Information should be shared both up and down the value chain to provide opportunities for participants to improve their businesses, while respecting confidentiality.	✓	×	×
Food waste is reduced throughout the value chain, reusing and recycling wherever practicable. Efficiency and Innovation	✓	×	×
Cattle are selected and managed to continually optimise available resources and suit their environment, while meeting market demand and consumer preferences.	1	1	×
Waste is reduced and opportunities to reuse and recycle are maximised throughout the value chain.	/	×	×
Product value and carcass utilization are maximized throughout the value chain.	<i></i>	×	×
Water and land resources are managed throughout the value chain to ensure responsible and efficient use.	/		×
Energy use is optimised for efficiency and productivity throughout the value chain.	/	×	×
Feed and forage use is optimised for production and welfare goals throughout the production chain.	/		
Pharmaceutical, nutrient and chemical use is executed safely and responsibly, optimising efficiency and productivity throughout the value chain.	✓ /	1	✓ ✓
Beef value chain stakeholders continually innovate, and responsibly use technologies and leading practices to adapt to changes in climate, resource and market conditions.	✓	×	×



NEW ZEALAND BEEF SUSTAINABILITY PROOF OF CONCEPT PROJECT

FINAL REPORT