

PROJECT GREEN

**FUTURE-PROOFING YOUR FARM BUSINESS
THROUGH SUSTAINABLE FARMING SYSTEMS**



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KELLOGG RURAL LEADERSHIP PROGRAMME 2003**

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INTRODUCTION

Over recent years, NZ farmers have seen the introduction of on-farm quality assurance programmes to meet market requirements for their products relating to the areas of food safety and animal welfare.

More recently we have seen an increasing awareness of the sustainable side of farming being questioned overseas, with emphasis being placed on the impact of farming on the environment.

What is sustainable farming?

In my mind, sustainable farming is about managing the farm to maintain or increase its long term productivity while maintaining or enhancing the environment.

The Project Green description is:

· Sustainable (with regard to agriculture and agricultural management)
The term 'sustainable agriculture' means an integrated system of plant and animal production practices having a site-specific application that will, over the long term:

- a. satisfy human food and fibre needs
- b. enhance environmental quality and the natural resource base upon which the agricultural economy depends
- c. make the most efficient use of non-renewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls
- d. sustain the economic viability of farm operations

It is likely that the increased emphasis on sustainability will result in demonstrated sustainability being the standard for market access.

We need to be proactive in setting up a programme to address this issue which will be practical and workable, rather than waiting for standards to be imposed on us which are not appropriate to NZ farming conditions.

The standards put in place must be farmer-driven, with full farmer input from the beginning, to ensure they are achievable at on-farm level.

We must limit bureaucratic involvement to avoid over complicated or unnecessary requirements and take a positive approach to address sustainability and turn it into an opportunity rather than a threat or cost.

Section.1 of this report outlines overseas Quality Assurance (QA) Programmes addressing sustainable production, their objectives and workings and the likely implications for NZ farmers.

Section.2 presents Project Green as an option to address the issue of sustainable production and market requirements, outlining the background of Green Project, its objectives, how it is implemented on-farm and the potential benefits from this.

Farmer case studies are presented to show how Project Green has worked on their properties and their perception of its benefits.

ACKNOWLEDGEMENTS

I would like to thank **Allan Frazer** (Meat NZ) for providing me with a wealth of information on overseas QA programmes, and for the use of his report from a recent visit to UK and Europe.

Thanks also to:

The **Project Green Team** for providing information via phone, e-mail, and hard copy whenever requested.

SECTION 1 OVERSEAS INITIATIVES

Australia

- Currently Australia has two nationally recognised Farm Assurance programmes called FLOCKCARE and CATTLECARE.

Quality Assurance in Australia

The Australian red meat industry strives to produce the safest beef, sheepmeat and goatmeat for their customers around the world.

Food safety and quality assurance programs have been implemented in the Australian livestock and meat processing industries to ensure that production and monitoring systems are in effect from ‘farm to fork’. These systems are backed by Australian Commonwealth and State government regulations.

Australia is free from many livestock diseases that affect other countries. Furthermore, government and industry plans for corrective actions are in place in the unlikely event that Australia needs to eradicate a harmful disease.

Industry workshops identified that the main drivers for producers to join a QA scheme were improved access to markets and financial incentives. Barriers to entry or reasons for leaving a QA scheme were lack of financial return, complexity and inflexibility of the schemes, onerous audit arrangements and the fact that QA accreditation is not required to sell cattle in many cases. Improving the ‘pull through’ from customers and adding value to producers as a result of participation in QA, were found to be essential elements of any revised approach to on-farm QA.

A new concept was developed in which it is suggested that: CATTLECARE, FLOCKCARE and other QA schemes introduce two levels. The first level would only contain those elements concerned with food safety. Level 1 should be seen as an industry wide food safety assurance scheme, aimed at controlling risk factors across most livestock properties.

Level 2 would contain the commercially driven supply chain alliances and the generic QA schemes that would include a series of modules that meet quality criteria in addition to food safety. These modules would be based on existing QA elements and progressively revised to include new customer requirements as they occur. Examples include hides, environment, OH&S, animal welfare, transport and eating quality.

Summary

- While Australia is not a major export market for NZ product they are competing to supply the same markets as NZ. (US, Europe, UK)
 - They appear to have QA schemes in place, with full industry and government support to respond to any new market requirements.
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Europe/UK

There are many different QA programmes in place through the UK and Europe, offering different levels of farm assurance. This section will highlight the programmes that appear to be designed to address the sustainability issue.

1. FARRE (the forum for environment-friendly integrated farming)

Integrated Farming

A competitive form of farming which aims to satisfy three key criteria:

- the financial objectives of farming producers
- consumer demands and expectations
- caring for the environment

The FARRE farm exchange network

The FARRE farm exchange network provides a platform for sharing experiences and developments between professionals, and also the opportunity to communicate with the non-farming community. The farm exchange network numbers **352** farm members in **52** different regional departments of France. The different farms accurately reflect the diversity of French farming.

Farmer Approval

Members of the Network are selected and approved by local committees and the national executive.

The FARRE charter, signed by all members, constitutes the basis of their commitment to the cause. All farmers also agree to implement the Environmental Self-diagnosis process drawn up by the scientific advisory board of FARRE.

Partners

A large number of organisations are pleased to associate with the FARRE approach representing a variety of different fields, from farming development unions to agricultural suppliers, the agro-food industry and environmental bodies.

2. LEAF (Linking Environment and Farming)

LEAF is a charity helping UK farmers improve their environment and business performance.

Farmers as stakeholders

LEAF (Linking Environment And Farming) was set up in 1991. At that time, the gap between consumers and farmers was getting wider and the need to meet and understand both sides of the debate was essential. For the first time a group of farmers, environmentalists, food and agricultural organisations, consumers, government and academics got together to do something positive for the farming industry.

They were motivated by a common concern for the future of farming and keen to develop a system of farming which was realistic and achievable for the majority of farmers. Based on work in Germany that had been carried out since 1986, LEAF was established to develop and promote Integrated Farm Management.

How LEAF is organised

Their governing body is an Advisory Board made up of some thirty members representing national government departments, farmers, supermarkets, conservation, environmental and consumer groups, educational establishments and industry bodies

Mission: 'committed to a viable agriculture'

LEAF is committed to a viable agriculture which is environmentally and socially acceptable and ensures the continuity of supply of wholesome, affordable food while conserving and enhancing the fabric and wildlife of the British countryside for future generations.

Objectives: 'working with farmers for farmers & consumers'

LEAF encourages farmers throughout the UK to adopt Integrated Farm Management (IFM) and to promote the benefits of IFM to consumers and raise awareness of the way many farmers are responding to current concerns.

Vision: 'joined up management'

Their vision for the future is of a sustainable system of agriculture which meets the economic needs of farmers, addresses the concerns of consumers and minimises any impact on the environment. IFM provides a commonsense and realistic way forward for farmers.

Demonstrating IFM principles

LEAF demonstrates IFM principles through a nationwide network of volunteer Demonstration Farms carrying out IFM and showing other farmers how to adopt it. They provide living and working examples of how Integrated Farming can produce affordable food in harmony with the environment. A programme of visits to each farm goes on throughout the year - not only for farmers but to anyone interested in how their food is produced.

Working internationally

Their work in the UK is part of a European wide movement - the 'European Initiative for Sustainable Agriculture' (EISA). Similar projects operate in Germany, France, Spain, Italy, Denmark, Greece and Ireland. This international co-operation enables them to have a stronger voice when seeking to influence agricultural policy at local, national and international level.

Supporting farmers

LEAF enables farmers to take up IFM by providing them with a detailed self-assessment audit of their farm which helps them to set targets to improve their business while enhancing the environment.

Collaborating

LEAF collaborates with researchers, government and other charitable organisations to develop IFM in realistic and practical ways, streamlining advice and messages to farmers. In particular, LEAF is involved in IACPA (the Integrated Crop Production Alliance) - which brings together the seven leading UK organisations working in the area of Integrated Farming.

Informing and discussing with the public

LEAF informs non-farmers of how, through IFM, farmers are maintaining their farming businesses whilst producing affordable and wholesome food, with environmental care and responsibility.

Influencing policy

LEAF influences by informing and advising key decision-makers on IFM, commenting on consultation documents and regularly briefing MP's, civil servants, EU officials and political advisers to promote changes to UK and EU legislation.

3. EUREPGAP

Background

EUREPGAP standards are developed by all partners in the food supply chain because of:

- Loss of consumer confidence to repeated food safety incidences (e.g. BSE, GMO, Dioxin)
- Development of retailer own schemes
- Increase of food safety legislation and enforcement at global level
- Need to improve cost efficiency of food chain controls

EUREPGAP Principles

The EUREPGAP standards for livestock, combinable crops, feed manufacturing and on-farm feed production are the core reference standards for global sourcing:

CERTIFIED ONCE - RECOGNISED EVERYWHERE

Based on the first global pre-farm gate protocol for certification, that is accredited to ISO Guide 65 - ensuring integrity

EUREPGAP is a benchmarking system and does not intend to be a scheme in the first place. It moreover likes to encourage the development of individual and/or national schemes for food safety and quality assurance while addressing environmental and worker safety and welfare issues at the same time. It is intended to give guidance and establish a level playing field across the globe to facilitate mutual recognition of different production standards.

The highest priority for EUREPGAP is the successful implementation of the global certification scheme for Fruits and Vegetables. However, due to food safety concerns, interested parties use the time to prepare a solid set of documents for the entire livestock segment. The goal is to have a reference system at hand that can serve as global benchmark to pre-farm gate production of food.

ACTION:

Select and set up groups of experts for different scopes (species) to agree on content for different modules (food safety/bio security; animal welfare, environment and social standards)

LIVESTOCK

- Developing an integrated farm assurance model and adapting principles of existing EUREPGAP protocols to the specific requirements of livestock
- Livestock production as a set of modules in the EUREPGAP Integrated Farm Assurance Approach

EUREPGAP can help the industry, when it centres around a 'Win-win' for all supply chain partners!

- Achieve the achievable (quick wins)
 - Avoid multiple audits/ISO Guide 65
 - Food Safety is base
 - EU legislation is base (including EU Animal Welfare and Environmental legislation as control points)
 - Traceability is the backbone
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4. SUMMARY

In April 2003 Allan Frazer (Meat NZ special projects manager) visited Europe to look into the issue of sustainable farming and what is currently being put in place.

The following are some notes from his visit which summarise the current situation and the potential implications for NZ.

Notes on sustainable farming following a visit to US and Europe by A E Frazer April 2003

Observations

- In the EU there is much greater emphasis on development of schemes that focus on an integrated or whole farm systems approach to environmental enhancement.
- As a minimum UK supermarkets will require their NZ suppliers to meet the equivalent requirements of the environmental standards that are presently being drawn up by the UK.
- A number of farming organisations in their response to the first draft commented "the proposed standards should apply to the whole of the UK and from all countries from which the UK imports agricultural produce to ensure that cost parity is maintained".

- There are a range of other initiatives leading to increased emphasis on sustainable farming approaches/adherence to environmental regulations:
 - New EU environmental legislation
 - Possible decoupling of EU farm subsidies from production with a switch to support for environmental enhancing measures.
 - A surge in farmer membership of producer driven sustainable farming approaches e.g. LEAF (linking Environment and Farming) in the UK claims that 20% of all farming land in the UK is covered by their scheme.
 - “EUREPGAP” is a body set up initially by European supermarkets to meet consumers demands related to food safety, social standards, environmental issues and in the case of livestock farming, animal welfare. They have developed standards, which they describe as "The Global Standard for Safe and Sustainable Agriculture".
- The LEAF approach has the active support of a wide range of UK farming and environmental organisations and also receives some financial assistance from government
- In general the systems in place are process rather than outcome orientated. This is of concern for NZ farming systems as environments vary markedly, and the most cost effective means of achieving desired outcomes are only likely to occur where outcomes are clearly stated but detailed prescriptive approaches are avoided.

Implications and actions

- The combination of developments in Europe as noted above, plus the Fonterra-Government agreement, suggests it is desirable that the meat producing livestock sector take stock of the sector’s present status. Increased scrutiny of our clean - green branding image is likely and Europe based initiatives that may be adopted by retailers risk being developed in a format that does not give regard to NZ farming conditions.
- Several NZ interests groups fear we will draw undue attention to our industry and speed up the process of requiring adherence. The contrary view is to try and influence the standards before they become set in place by those only having knowledge of European farming conditions.

5. CONCLUSIONS

Our overseas markets are placing increasing emphasis on the sustainable side of farming to address economic, environmental and social issues.

Programmes are being put in place in Europe/UK which NZ farmers will likely be required to adhere to.

The standards proposed are unlikely to consider NZ farming conditions and may not be workable or practical.

It is not a matter of if these standards are imposed, more a matter of when.

This makes it very important that we take a proactive rather than reactive approach.

We need to present our own programme to the markets tailored to NZ farming conditions but still able to address the issue of sustainability within our own farming systems.

It should build on our existing Farm Assurance programmes which primarily satisfy food safety and animal welfare, to include economic, environmental and social impacts.

SECTION 2 PROJECT GREEN

I believe that Project Green is a viable option to address the issues raised in Section 1. Along with other farmers and industry professionals, I have been involved in drafting the standards and implementing the programme on my own property.

The following section will outline the workings and benefits of Project Green.

1. Background

In January 2001, a project was initiated to develop a minimum (voluntary) New Zealand standard for sustainable production on sheep, beef, deer, and goat farms.

This standard for 'sustainability-based' supply builds on conventional (or base) farm assurance requirements.



The three key outcomes sought in the development of the standard were;

- Enhanced production,
- Demonstrated sustainability
- Potential for market reward for product

The project was funded by, the MAF Policy (Sustainable Farming Fund), the Business Council for Sustainable Development, and Richmond, as the lead meat company. The project has involved over 50 farmers from

Hawkes Bay, Manawatu, Wanganui, Taranaki, King Country, Waikato and Bay of Plenty.

In addition to farmer input, Land Managers from six Regional Councils have also been involved in the development of the 'land and environmental' component of the standard plus an AgResearch Soil and Environmental Scientist.

A commercial veterinarian was also heavily involved in the development of the 'animal' component of the standard.

It was agreed from the start that the input from farmers was crucial in the development of the on-farm specification. It was also agreed that to be credible the standards would require the development of an audit system, with independent verification.

Aligning Project Green with other primary industry sectors is seen as a necessary part of the long-term plan.

The standards revolve around three plans:

- Animal Management Plan
- Land and Environment Plan
- Social Responsibility Plan.

The plans have been developed in collaboration with the 50 farmers across a 2½ year period from January 2001 to June 2003. As part of the project, 30 farmers have developed a set of draft plans for their own farm.

2. Strategy

The standard builds on BASE FARM ASSURANCE (food safety and animal welfare) and is VOLUNTARY for sheep, beef cattle, deer and goat farmers.

The standard is based on best practice farming and accordingly enhances farm production, provides future proofing for the farming business and demonstrates that we are in fact 'clean and green' by providing the basis for an internationally recognised Quality Assurance (QA) system

Other features of the standard include:

- Triple Bottom Line (TBL) reporting of economic, environmental and social aspects of production
- Meeting the requirements of the Resource Management Act regulations with practical and acceptable solutions thereby avoiding the risk that sustainability standards will be imposed on us by central government
- The opportunity to negotiate 'equivalence' with our trading partners, rather than having to accept conditions of supply that do not reflect New Zealand's farming systems.
- Maintaining a competitive position with other countries (e.g. Australia, EU etc) that are also developing sustainability programmes with the full support of their Government and associated industry agencies.
- The potential to differentiate product for more discerning and higher paying markets

3. Principles

- A supply capability based on sustainability principles must consider economic, environmental and social aspects of production.
- Conditions for supply are based on factual information with a scientific basis wherever practical. However consumer views and perceptions on acceptable practice are considered and are adopted wherever proven to be important.
- Builds on farm assurance for conventional supply, which includes animal welfare and food-safety requirements.
- Integrated management between animal livestock species, animal age groups and/or through cropping/pasture rotation is encouraged as an effective means of reducing challenge from pests.
- Overall, chemical intervention is minimised by application of the management plan strategies including adherence to a demonstrated need principle.

MANAGEMENT PLANS

1. Animal Management Plan (AMP)

Goal

To manage animals in a production system that sustains performance and profit and ensures the care and welfare of animals

- Animals that are well fed and managed are less prone to disease and pest challenge and therefore likely to have a reduced need for medicine intervention.
- Treatment of animals with medicines is based on identifying and documenting a demonstrated need.
- Sustainable systems that incorporate integrated management and genetic solutions are complementary to animal health and animal performance

ANIMAL HEALTH and WELFARE ISSUES COVERED BY THIS PLAN

<i>Animal WELFARE</i>	Feeding
	Shade and Shelter
	Stock Handling
<i>Animal HEALTH</i>	Disease
	Nutrition

- The Animal Management Plan is developed in consultation with an approved Veterinarian who has working knowledge of animal health and welfare challenges relevant to this region.
- The Plan will reflect the unique mix of animal health challenges and opportunities found on each farm.
- Actions developed to address each health or welfare issue will reflect the resources and capabilities available to the producer.

AMP Conditions

A fully applied and current level of ‘Base Farm Assurance’ is required as a prerequisite. Qualifying ‘Base Farm Assurance’ must comprehensively cover industry requirements for food safety and animal welfare.

- Pasture only feeding must be practised.
- A documented feed plan must demonstrate that the animals are well fed for the forthcoming year.

The feed plan must include:

- A plan to cope with possible feed shortages including droughts and/or floods and/or snow storms.
- A plan for managing sheep post shearing.
- · A documented animal health management plan must be prepared and detail:
 - All anticipated animal health challenges
 - A monitoring programme to address the challenges
 - A forecasted schedule of medicine inputs and management inputs
 - A management system to demonstrate that all reasonable steps have been taken to address disease and parasite challenge through integrated animal, pasture and crop management.
- Evidence that genetic solutions are actively sought to address animal health challenges for the environment in which the animals are being farmed.

AMP Key Points

- Emphasises good animal nutrition as the key weapon against animal health challenges.
- Addresses the threat of parasite resistance to chemicals by:
 - monitoring and forecasted treatment schedules
 - integrated management systems between stock classes/species
 - animal breeding solutions
- Less chemical use
- Reduced losses from sub-clinical parasitism
- A sustainable animal system
- A productive and profitable animal system

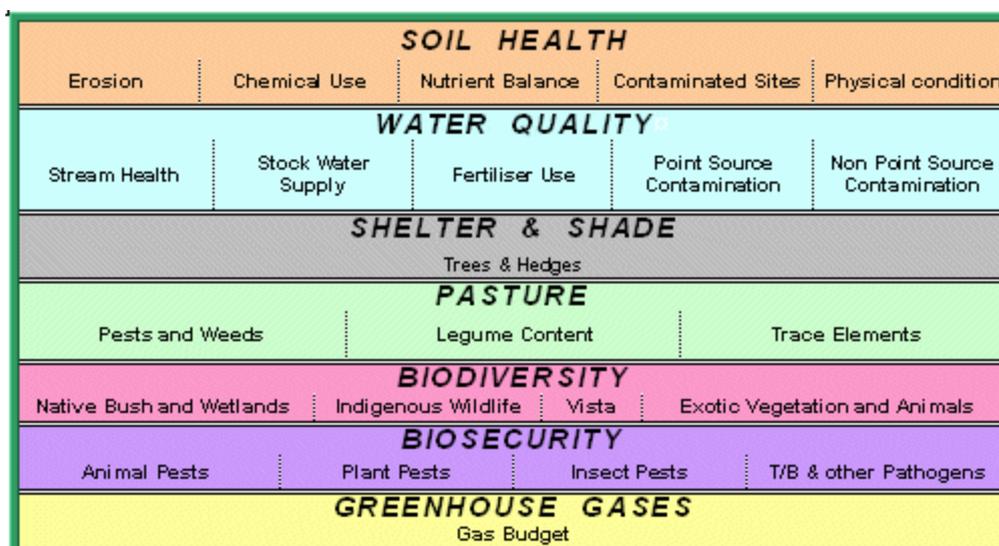
2. Land Management Plan (LMP)

Goal

To farm landscapes with pride, and to a plan, to ensure the land and environment remains in good heart for the generations to come.

- Soils are protected against physical damage, declining organic matter, nutrient depletion and loss by erosion.
- Water quality is principally addressed through erosion control, stream-bank protection and vegetation and animal management.
- Protecting the soil resource through the matching of the enterprise with Land Use Capability units (LUCs), at a paddock scale map level.
- Minimising the use, and increasing the safe use of chemicals, through appropriate application methods underpinned by the principle of demonstrated need.
- Including indigenous flora and fauna management as an enhancement to biodiversity, and also to address social responsibility requirements.

LAND and ENVIRONMENT ISSUES COVERED BY THIS PLAN



- The LMP is developed in consultation with an approved Land Management Professional who has working knowledge of challenges relevant to the region.
- The Plan will reflect the unique mix of challenges and opportunities found on each farm.
- Actions developed to address each issue will reflect the resources and capabilities available to the producer.

LMP Actions

- A paddock scale resource map of the farm which includes:
 - The identification of the major Land Management Units (LMU) for the farm detailing for each LMU the land area, the contour, major LUC units, soil types and the dominant vegetation.
 - A list of the strengths, weaknesses, and conditions of use for each LMU.
 - Identification and location of perennial streams and wetlands
 - A list of environmental issues for each farm including their severity, priority and a brief description of the proposed control measures.
 - A series of action plans for each of the environmental issues identified for each LMU.

Classifications

· Land Use Capability (LUC)

Land Use Capability is a nationally accepted classification system that groups land into eight land use capability classes. The first four classes comprise land suitable for cultivation and cropping, and the limitations to use increase from classes I to IV. Class V to VII comprise land unsuitable for cropping use, but suitable for pastoral or forestry use, with limitations increasing from Classes V to VII. Class VIII is suitable only for catchment protection purposes. The range of uses that the land may be put decreases from Class I to VIII. Classification of the farms land resources in LUC units has a number of advantages. It allows consistency in the description of the physical attributes of the land and provides a systematic way of classifying land based on the type of rock, soil, slope, erosion and vegetation cover.

· Land Management Unit (LMU)

This is a parcel of land within a farm, of similar physical description, which is managed in the same way.

LMP Plan examples

Table 1: Definition of Land Resource Land Use Capability Summary for Te Parae

Suite or mgt area/LMU	LUC Unit	Area (ha)	Strengths	Limitations	Conditions of use	Recommended land use
			1300mm average across Te Parae per annum			
	IIIw1	28	<ul style="list-style-type: none"> Fertility Drainage on Dad's block Pasture growth holds on well into summer Cropping potential Approx 10,000kgs DM 	<ul style="list-style-type: none"> Wetness – poor drainage capability Unsuitable for lambing Exposure 	<ul style="list-style-type: none"> Minimise compaction & pugging Minimal cultivation to retain topsoil health Managed riparian margins 	<ul style="list-style-type: none"> Cropping – limited Dairying (with irrigation), intensive pastoral, deer, all require riparian mgt Horticulture?
Mudstone downlands	IIIe3	110	<ul style="list-style-type: none"> Size of area Subdivision in place Versatile in relation to other mgt areas Cropping potential Ground spreadable Approx 10,000kgs DM 	<ul style="list-style-type: none"> Slight weakness in soil type – in relation to imperfect drainage Reduced winter grazing Exposure during lambing 	<ul style="list-style-type: none"> Minimise compaction & pugging Minimal cultivation to retain topsoil health Managed riparian margins 	<ul style="list-style-type: none"> Cropping Dairying (with irrigation), intensive pastoral, deer, all require riparian mgt Horticulture?

Table 2
Environmental Issues on Te Parae

Issue		Reason	Priority	Location		Brief outline of solutions and control measures
				Land mgt area	LUC unit	
Erosion – in relation to soil loss & sediment in water	Active erosion on 3 land management areas	High	Mudstone flow country	V1e10	<ul style="list-style-type: none"> Implementation of programmes to reduce the potential for erosion, including conservation tree planting on slopes & in gullies, debris dams, & erosion control forestry Establishment of drought resistant species on steep dry slopes, fodder blocks Stock protection implemented and monitored Tree management Erosion programme to link with aims in reducing any effect on water quality Implementation of grazing & stock management policies to minimise erosion Continuation of fertiliser programme Implementation of cultivation practices which removes the potential for erosion to occur – such as no-tillage systems 	
	There is rill & sheet erosion potential on the remaining LMA's however that is dependent on cultivation practice and is considered low priority	Medium	Mudstone hill country	V1e2 V1e7		
		High	Mudstone steep hill country	V1e1		
		Low	Remaining LMA's	IIIw1 IIIe3 IVe3		
Chemical DDE	Test to find out if any issue	Medium	All	All	<ul style="list-style-type: none"> test for DDE and other residues 	
Nutrient balance	To ensure efficient use of nutrients & to reduce losses	High	All	All	<ul style="list-style-type: none"> Use of Overseer programme to provide annual nutrient budget 	
Cont'd sites	Old dump site	Medium	N/a	N/a	<ul style="list-style-type: none"> Removal of site from grazing and monitoring of site for visual signs of leaching Non-use 	
Physical health	If health declines then loss of production	High	All	All	<ul style="list-style-type: none"> Incorporate into farm plan VSA monitoring 	

LMP Key Points

- A comprehensive farm map as a business resource for effective planning e.g. ID soil types and LMU for strategic management decisions
- Build on the strength of farm resources
- Focus investment on best return areas e.g. targeted fertiliser application
- Protect soils from long term damage
- Prevent/minimize contamination of at risk waterways
- Addresses Resource Management regulations
- Provide a productive environment for animals e.g. tree planting for erosion control, shade and shelter, fodder resource
- Enhances value of property through demonstrated sustainability and an attractive landscape



3. Social Responsibility Plan (SRP)

Goal

To maintain a vibrant farming environment and positive future outlook by committing to the care of people in our employment, the local community and our heritage

- Comprehension of the contributors and reasons for the Animal Management and Land and Environment Plans.
- Commitment to sustainable development by actively supporting any initiatives taken to promote the sustainable farming approach, and the resultant supply capability.
- Active participation in local community activities and organisations to maintain a vibrant and desirable social environment in which to live and raise a family.
- Well trained and supported farm staff will work smarter, work safer and be happier. Such attributes will likely add to the farms productivity and act as an incentive for staff recruitment and retention.
- Training of staff in all aspects of farm assurance requirements including sustainability.
- Sensitivity to cultural and historic sites of significance and heritage issues as appropriate for the farm and/or district

SOCIAL RESPONSIBILITY ISSUES COVERED BY THIS PLAN

STAFF	Training
COMMITMENT <i>To Sustainable Development.</i>	Pledge
COMMUNITY	Community Support and Service Promotion of Sustainable Management
HERITAGE	Sites Of Significance

FARMER CASE STUDIES

Following are 4 case studies (Compiled by Anna Lorck - PR Consultant) for Project Green.

They outline the experiences and thoughts of four farmers from different regions, who have implemented the programme on their properties.

Case Study-Hawke's Bay

Hawke's Bay farmer Andrew Russell has been involved with Project Green since its inception three years ago. He saw an opportunity in the sustainable model to improve the long-term performance of the farm, and believes it has been a good business decision.

Asked what level of financial investment he has had to make to become involved with Project Green, the answer was "Minimal, more a commitment of time and effort. It has been a re focus and re organisation of existing resources to foot the bill toward a long term business approach. For example, we've focused on fencing and tree planting, and how we can better use these resources for long term financial gains."

The biggest environmental factor Andrew contends with is drought, and to proof his property he's creating large reserves of silage and fodder crops, and has developed a mix of stock providing flexibility in drier times. Another innovation is a monitoring schedule of animal health product use, creating greater efficiency.

"This has helped reduce the animal health bill and improved the overall health of the stock."

Changes in his stock management programme include a reduction in their breeding programme during drought periods to provide further flexibility. They have also taken a more balanced approach to their sheep and cattle ratio, helping to deliver a more balanced and natural parasite control.

Andrew's overall feeling toward the project is one of optimism. He says the hardest part has been bringing the different parts together under one plan. His number one objective is to ensure access to key markets for his products in the future. New Zealand agricultural products have a high quality image, by taking this one step further we create an even stronger competitive advantage over our competitors.

Andrew farms Tunanui Station with his father Sam and brother John. They employ a full time worker and a part time fencer and stock manager. The 1465ha property, at an average altitude of 400 metres with an average rainfall of 1095mm holds 13,500 stock units.

Case Study – Wanganui

Dougal and Dianne McIntosh have been involved with Project Green since its conception three years ago. Originally they were involved with S.U.B.S. (soils underpinning business success) and were motivated to progress to Project Green. They believe the biggest challenge has been coming to terms with the new management style for sustainable farming.

“It’s about re-allocating resources to get the optimal productivity from what already exists, rather than rebuilding something new,” Dougal says.

“Originally I was a ‘seat of the pants operator’, now my animal health, land management and fertility programmes are all carefully planned and managed,” he said.

Through Project Green they have developed an environmental risk management programme against harsh seasonal weather patterns.

They have sought animal health advice, and changed from shower to a pour on dip reducing viral infections, animal and staff stress levels, and soil contamination from run off.

Dougal has also developed a feed budgeting programme providing more confidence and flexibility, plus it helps to manage their cash flows.

A new strategic fertiliser programme has improved stock recovery times from drought and winter periods, and they have started using nitrogen in Spring which has made a big difference to productivity. Their new land management policies include increased subdivision and water supply providing greater control and overall stronger pasture performances. The least productive areas of the farm have been planted in forestry, helping erosion, and reducing pest control costs.

The McIntosh’s are strong supporters of the project, and believe it is a smart move towards improving a farm’s sustainability.

Ratamarumaruru holds 8,600 stock units with a sheep to cattle ratio of 80:20.

Case Study - Waikato

Mike and Jackie Carter, Piopio became involved in Project Green because they were interested in having an input into developing sustainable farming standards.

It was a good opportunity to share information with other farmers in the area, as well as other industry professionals.

The Carters believe sustainability is about building realistic standards that enable farmers to move forward while protecting and enhancing their land, and growing production.

“Sustainable farming is in our best interests, but the standards set need to be robust enough that they are recognised and relevant in the market place if we are to gain real benefit.

They feel increased global focus on food safety means its important New Zealand farmers lead an initiative toward a voluntary industry standard which they are comfortable with, and that will be acceptable internationally, before it is taken out of their hands.

Producing the three plans takes time, but the information gained and forward planning is a great help to farm management and making decisions.

Developing an animal health program with animal integration and monitoring has helped minimize chemical use. The Land Management plan has helped prioritise erosion control and our land sub-division and retirement program.

One of the best ways to find out more about the project, is talking with someone already involved, who’s had hands on experience and can provide a realistic account of what it really involves.

In regards to initial criticism of Project Green, the Carters said they could understand people’s concerns because they had some themselves. However they believe greater regulation will be demanded from the international marketplace sooner rather than later and that it is important New Zealand farmers make progress now, so they are well placed in the future, and they feel Project Green will help do this.

Mike and Jackie run a 1000ha sheep and beef farm, running 4500 breeding ewes, 1400 breeding hoggets, 200 Breeding Cows, and fatten 600 bulls at 18 months.

Case Study – Waitotara

Rod Pearce's Waitotara Valley Property is a tried and tested example of the type of workable and sustainable farming policies Project Green is all about.

In three years the 1500ha property has undergone a steady transformation, which has also helped attract permanent staff to live and work on the farm.

The Land and Environment plan allows five years to meet the projected targets and is an excellent farm management tool.

Rod and his team have introduced strategic fencing, pole planting, water reticulation, stream protection, native re-vegetation, forestry, and reduced his chemical inputs, with the exception of fertiliser.

The planting programme, which includes a range of poplars, willows, redwoods and pines, has improved erosion control and added shade, shelter and vista.

The extensive water reticulation programme encourages livestock away from waterways and also will improve animal health and pasture utilisation.

Subdividing paddocks into Land Management Units has allowed greater options for managing livestock and also parasite control.

Rod says his biggest challenge has been coming to terms with a tree planting programme. For him, the concept of large- scale pole planting on steep hill country was, and still is, a concern and must be very carefully managed

The commitment he has made required a 10 per cent increase in on-farm expenditure over the first three years, (not including fertiliser). He is confident that returns will outstrip costs in the medium term.

Hawkes Bay farmer, Bill Ritchie, provided his thoughts on Project Green:

“My involvement started with an invitation (along with many others) to attend the introduction day some 3 years ago now. At that meeting we were asked to outline some key criteria for the development of Project Green.

- It has to be a national standard
- It has to be voluntary
- It has to be a valuable management tool
- It has to be realistic
- It has to be flexible
- And importantly it must encapsulate the overall message of sustainability.

One of my biggest issues at the time was “OK I am in the process of developing and intensifying my business, all at a cost. Was my return simply going to be in increased production or a greater aesthetic view out the office window?”

Processors seem to have a wonderful ability of averaging out suppliers. Was this the tool for me to differentiate my product, increase my production, decrease my cost of production, and introduce a concise detailed management tool that was not only practical but workable. From that point and realization, attending the meetings and following the due process was only going to add value, I felt.

So here we are [...] investing time in us, the New Zealand Farmer, and launching a Standard for Sustainable Farming in New Zealand, constructed by Farmers for Farmers.

We are all aware of media coverage locally and internationally re animal welfare and food safety. Realistically, how long do you think it will be before somebody somewhere tells us what can and can't be done.

To me, this is our opportunity to be part of an effective and evolving management tool that enhances production and essentially is a form of progressive compliance. This is a step higher than base farm assurance. It is a very effective way of differentiating and product value-adding, all inside the farm gate.”

CASE STUDY SUMMARY

These case studies show some common benefits between the farmer opinions of:

- Having a workable standard for Sustainable farming to react to future market requirements.
- Farmer-driven standards
- A planned approach to land and animal management.
- More targeted use of resources, e.g. fertiliser application
- Reduced chemical intervention.
- A longer term plan for the future of the farm business.
- The overall production enhancing abilities of implementing the plans.

CONCLUSIONS

With the positive feed-back from farmers implementing Project Green on their properties, and my own experience with the plans on my property, I feel this does present us with a workable set of standards to address any future market requirements, while encouraging farmers to plan their business with the issue of sustainability in mind.

Farmers have been involved in setting up the programme from the beginning, which has been very important to ensure the standards do relate to NZ farming conditions and are practical.

The management plans, implemented appropriately, have the ability to enhance production and future-proof the farm business.

How often do we get a set of standards put in front of us that are not just another cost, but in fact can enhance production while addressing market requirements?

Many farmers will already be farming to these standards, but most will not be formalising their practices to the level of Project Green and that required by the market place. So the implementation of the programme will not require a large cost to begin.

Actions are more likely to be taken if written down as part of a plan.

Project Green is not '*rocket science*' but in fact is just a process for formalising best practices.

We need to be proactive in addressing anticipated market requirements relating to sustainable farm production and promoting our 'clean green' image, which should not be taken for granted.

The practice and value of sustainable farming needs to be promoted and reinforced at international level as well as on a national level as urban perceptions of farming are often mis-informed or clouded by media coverage of so-called 'dirty farming' practice. Urban views do have the potential to influence the markets we are trying to access.

The Mission Statement for Project Green is:

“To achieve a standard of food safety, animal welfare and resource management that is defensible in all countries of the world”

I believe that the outcome expressed in the Mission Statement has been realised in the development of Project Green.

REFERENCES

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