

#### **General**

#### 1. Why has B+LNZ developed the environment strategy?

Whilst sheep and beef farmers are already doing a lot to care for New Zealand's natural environment, there is more that can be done. This strategy, which has been developed with farmers, sets long-term goals to improve the sector's environmental performance. It also maps out in a tangible way how the sector can get there.

Ultimately, sheep and beef farmers want to be part of the solution, not part of the problem. This strategy outlines how.

#### 2. What are the key goals of the environment strategy?

The strategy sets out high level goals that we want to achieve as a sector – including healthy productive soils; clean water that New Zealanders can gather food and swim in; towards carbon neutrality; and thriving biodiversity.

Underpinning the strategy is a three-year implementation plan aimed at driving the sector forward towards meeting those goals.

Our environmental strategy looks across all environmental aspects and how they intersect. Communities and collaboration is also at the heart of everything we are aiming to do.

# 3. What are the key elements in your environmental programme?

- Looking at all environmental issues together, rather than as a single issue in silos;
- Every sheep and beef farmer to have a land and environment plan by 2021;
- B+LNZ investing in supporting collaborative community catchment groups; and
- B+LNZ developing tools so farmers can understand their environmental impact and work out the things they can do on their farm to have the most positive environmental impact.

#### 4. How will the environment strategy benefit farmers?

As well as giving farmers tangible advice on improving their environmental performance, it will also greatly assist B+LNZ in engaging with the government to ensure the development of sound environmental policies, and to help us communicate with the wider New Zealand public.

#### 5. Are farmers fearful of more government regulation?

Regulation is an integral component of environmental management. Famers don't fear regulation per se – their fear is around poorly designed regulation that doesn't achieve the intended environmental outcomes.

#### 6. Is sheep and beef farming environmentally sustainable?

Agricultural production does have an impact on the environment, but can be environmentally sustainable if it is done within the environmental limits of the land. This means matching land use to land capability. It is about tailoring farming practices to the type of land class, soil and water.

#### 7. Does the sector have a poor environmental record?

Data shows that sheep and beef farmers have been producing more from less (reducing their environmental footprint) since the 1990s.

Roughly the same amount of lamb is produced, but from half the number of ewes, and the sheep and beef sector's contribution to GDP has doubled from \$2.5 billion to \$5billion in that time. The reduced animal numbers has meant that the sector's greenhouse gas emissions profile has significantly shrunk, and the amount of nitrogen per kg of saleable product has declined.

Having said that, there is more to be done, especially around sediment, phosphorus and greenhouse gas emissions. The sector is up to the challenge though.



#### 8. Isn't this just green-washing?

No, the purpose of the strategy is to acknowledge where we are now (the good, bad and ugly) to outline our vision of success, and to set a plan in place to help the sector get there.

We have kept the timeframes on the implementation short to show that we mean business and are motivated to make change now – not in some off distant future.

A major focus of the implementation plan in the next two years is on developing tools to more accurately measure the sector's environmental impact and identify exact actions farmers can take on their farm to mitigate those impacts. In parallel with this research, the plan also involves a focus on new extension programmes and advise to farmers on ways they could improve their environmental impact based on current science.

Greenwashing is when you make some overarching statements – we wanted to include the detail so New Zealanders have complete visibility about what we intend to do and how we intend to do it. We know that there is plenty more to be done and that we will need to add to our implementation plan, but this is an exciting part of the journey that the sector is now on.

#### 9. How are you going to measure it?

One of the actions that we outlined in this implementation plan is to develop measurable goals. We will be seeking expert input from partners across the board to ensure we develop a robust and transparent reporting framework.

# 10. There are a lot of activities in the document, are they achievable?

Yes, but not by B+LNZ alone. We plan to partner for impact – we plan to work with numerous different partners to deliver the implementation plan.

#### 11. Are farmers really up for this?

Absolutely: The strategy was first developed with our farming leaders, and then a prototype shared and tested with about 1000 of our levy payers. The Board (comprising farmers) also shaped the final product. Of course there is diversity across the sector, but B+LNZ has worked with farmers every step of the way to develop this strategy.

# 12. Why even farm livestock, why don't we just turn to alternative proteins as the answer?

Our research shows that there is a place for both alternative proteins and natural red meat.

Our research shows there is untapped demand for high quality, free range, hormone free, antibiotic free red meat and that consumers are willing to pay a premium for it.

# 13. When can we start seeing the results of your environmental strategy?

Some parts of the strategy will be implemented quickly. But some elements may take some time to see results. We are putting a stake in the ground today and are focused on improving our impacts across the board.

# 14. If there is one thing a sheep and beef farmer can do now to improve their environmental performance what would it be?

Develop and implement a land and environment plan to understand and manage on-farm critical source areas and critical flow pathways.



#### Water

1. What impact does sheep and beef livestock urinating have on soil and water quality?

All livestock (and people) can impact water quality. Urine is one of the factors. The degree of impact is dependent on how high the stocking rate is (how many cattle or sheep per hectare), and other factors such as soil type, topography, climate and time of year. Good management practices can significantly reduce the impact.

Because sheep and beef farms are generally extensive (ie not high stocking rates) our nitrogen impacts are generally lower than other forms of agricultural production, but there are some areas where we do have an impact.

Our main issue is sediment caused by erosion.

2. Isn't the damage already done – in terms of water and soil quality? Contaminants such as nitrogen are already in the soil and leach into waterways for years to come?

Many areas are impacted and in terms of nitrogen loss improvements will only be observed over a longer timescale. All the more reason to get started now and create a positive legacy.

We can and do see more immediate improvements in water quality for other contaminants – phosphorus, sediment and pathogens.

3. Is your vision for cleaner water even achievable?

Yes – but in some areas it may take a long time to achieve. This is not, however, an excuse for inaction.

4. What is B+LNZ's position on excluding stock from waterways and fencing?

Stock exclusion is one tool but isn't the only one and it isn't one that addresses all water quality issues. A fence wont stop nitrogen leaching or prevent erosion for example.

In some areas it will be a good solution, and in others we need to look at different mitigation and management options (like water reticulation). The key message is that a national one-size fits all approach will not have the best outcomes, especially in hill country.

5. Isn't the real issue the intensified land use?

In some areas it is, particularly where nutrients are the issue. But often sediment is a problem, and this comes from erosion, which is not always associated with intensification.

S. You have talked in the past about B+LNZ wanting councils to take a natural capital approach to nutrient allocation rather than grandparenting. Wouldn't this alienate holders of existing rights?

How we farm today, determines what's left for tomorrow. For a sustainable agricultural sector, in perpetuity, we need to ensure we farm within the environmental limits of the land.



### Climate change

# 1. What is B+LNZ's position on agriculture's inclusion in the ETS?

Governments of all colours have always signalled the ETS as the tool of choice to manage GHG emissions, and that at some stage agriculture will be included. The real issue is not whether we should be in the ETS, but whether the ETS can structured in a way that encourages and rewards positive on-farm change

#### 2. How many farms are currently carbon neutral?

We don't know at this stage but we know there are many farmers out there who want to be net carbon neutral or better. Looking at the amount of woody vegetation and woodlots on farms currently, there may be many there already.

There is no tool to work out a carbon balance at a farm scale, so B+LNZ is working to develop such a tool that will allow an individual farmer to estimate their carbon status. It is likely to be just an estimate as there are many things that will reduce GHG emissions, but many of these will be hard to measure with any degree of accuracy.

# 3. You say your emissions have declined significantly, but that's really only because of fewer livestock, right?

While sheep numbers in particular, have decreased by about 50%, the amount of sheep meat produced has only dropped about 8%. So more meat is being produced by fewer animals. This is as a result of a lot of things including improved lambing rates, better quality feed and feed management, and improved genetics for growth rates. It also makes New Zealand lamb one of the most emissions efficient in the world. Emissions efficiency is about producing lamb with the fewest GHG emissions per kg product.

# 4. Your sector accounts for a quarter of our total emissions, we're not going to meet our international obligations unless we stop farming, right?

The sheep and beef sector are already making a significant contribution to GHG emissions reductions, and are now producing around 32% fewer absolute emissions than in 1990, one of the few parts of the economy to reduce their emissions.

The decision on where emissions reductions must come from or how they are off-set is one for that will need to factor in not only the GHG impacts but the contribution of the sector to the national economy as well as the most cost effective approaches.

# 5. Because methane's existence in the atmosphere is short-lived, we don't have to worry about it right?

Although methane is a short-lived gas and its warming effect decreases significantly after about 12 years, while it is in the atmosphere it has a greater impact on warming in the atmosphere than CO2.

Reductions in methane are required to help achieve the global commitment to a 1.5 degree limit to warming, but methane does not have to reduce to zero to achieve this.

How methane is treated within the ETS is something that will need to be determined. Potentially, the new Climate Change Commission may set a separate methane target for the country which will influence the way methane in treated in the ETS.

## 6. With methane in the atmosphere being short-lived, should the sector be in the ETS?

The sector also produces nitrous oxide which is a long-lived gas.



#### 7. What is your view on planting more trees?

Planting more trees is an essential part of the country meeting its climate targets and wider environmental objectives.

Trees are one of the few ways currently widely available to remove CO2 from the atmosphere. The real question is what sort of trees and where they go.

8. Doesn't the Productivity Commission report demonstrate that a market rate for carbon, that the sector is unviable?

The price of carbon will affect a number of parts of the economy, including the sheep and beef sector. Increasing the price of carbon in the ETS is one mechanism that can be used to drive down emissions levels across all sectors of the economy.

Until there is a decision on how the split gases approach recommended by the Productivity Commission might work, it is difficult to assess what impact the carbon price will have on the sector. The perception that the sheep and beef sector is only marginally profitable at present is not supported by real data.

# 9. Does that mean the sector will rely on cross-subsidies and corporate hand-outs?

NZ agriculture is among the least subsidised in the world. The sector has already demonstrated its ability to meet environmental challenges without subsidies through the emissions reductions achieved to date, more than almost any other sector in the economy.

10. What is the prospect of technological/biological innovations being developed to mitigate the impact or reduce emissions?

B+LNZ is a significant financial contributor to the Pastoral Greenhouse Gas Research Consortium (PGRC) directing ongoing research into science that can help sector reduce GHG emissions. While some of the developments look promising, even the most likely approaches are still some years from being available for widespread use.



### **Biodiversity**

1. Doesn't sheep and beef farming create a monoculture?

A monoculture is something that is the same everywhere. Sheep and beef farming are anything but a monoculture, with every farm different in its location, soils, climate, and farm systems. Sheep and beef farms are the biggest source of native biodiversity outside the conservation estate.

What sort of native birds or fauna exist on sheep and beef farm?

You name it, sheep and beef farms have it. Everything from common native species like fantails to much rarer birds and plants.

In fact, sheep and beef farms can play an important role in protecting lowland indigenous species, which can be more poorly represented within our conservation estate. This is because many of our protected forest areas are in the mountains, so the higher altitude species are often better represented in our conservation land.

3. Is sheep and beef farming putting at risk the very existence of some of our indigenous plants and animals?

Protecting our indigenous biodiversity is very important and offers a sense of pride to many sheep and beef farmers. In fact, last year more than half of the QEII covenants (which protect native biodiversity in perpetuity) were established on sheep and beef farms.

#### Soil

1. What about the legacy issues of old agricultural chemicals contaminating the soil?

Many of the legacy issue to the sheep and beef sector are related to old sheep dipping sites. These sites are often quite small and in isolated locations. It is important for land owners to identify them and take the necessary management decisions

2. What about the issue of soil compaction identified in the State of the Environment report?

Soil compaction is an issue that we have identified as offering our more intensive farmers an opportunity to find efficiency gains. Targeting soil structure and providing sheep and beef farmers with knowledge and skill to maintain and improve soil structure will drive the soil's ability to store water and nutrients allow better rooting for plants.

3. Isn't sheep and beef farming contributing to soil erosion and the further degradation of fragile hill country soils.

Often only small areas of the farm are responsible for the majority of the soil being lost. The use of LUC (Land Use Classification) can identify parts of the sheep and beef farming landscape that are at higher risk of erosions. These areas can then be targeted for mitigation measures, set aside for biodiversity purposes.

4. Why is soil so important

Soil is the engine room behind New Zealand's sheep and beef farming. Healthy soils are productive and resilient soils that foster biodiversity.

### **Dairy**

1. What is in this strategy for dairy beef levy payers?

We collaborate closely with DairyNZ and dairy farmers on a wide range of environmental issues. The strategy will enable our sector to lift its engagement on the environment and tell a better story, which will be of benefit to all sectors as we are all affected by negative public perceptions.

Specific areas of our strategy where we will be lifting our engagement of benefit to dairy levy payers, is support for catchment approaches and winter grazing.

2. Has your sector escaped the scrutiny that dairy farming has had?

No. Sheep and beef farmers face similar scrutiny to other sectors. The difference is that some of the issues affecting sheep and beef farming are different to those affecting dairy farming, and for different reasons. Sheep and beef farmers recognise that their systems can have adverse impacts on the environment and that these too, must be managed to ensure sustainability.