

# DECISION TIME FOR FARMERS

Farmers need to tune in fast to pricing proposals for agricultural emissions, writes **Joanna Grigg.**



Suddenly it is the most important issue, leaving freshwater strategy, biodiversity strategy and pastoral lease reform in its wake. February is the month for attending a roadshow and putting in a submission.

Carbon dioxide, methane and nitrous oxide are the greenhouse gas outputs from stock and fertiliser that look to be 'taxed' in some shape or form. The plan is for a pricing system for farms to be designed, tested and up-and-running within three years.

Whether gases are measured and levied at the farm-level or at the processor level (as meat or milk comes in) is what will



Warwick Lissaman, Marlborough sheep and beef farmer, will attend the roadshow this month to find out more.

be discussed at the roadshows. These are hosted jointly by Beef + Lamb NZ and Dairy NZ, and supported by Federated Farmers, although feed into the wider primary industry consultation (known as the Primary Sector Climate Action Partnership or He Waka Eke Noa).

Warwick Lissaman, a breeding/trading sheep and beef farmer from Marlborough, is keen to get an answer at the roadshow as to why farmers should buy-into paying a levy, as well as the options for how.

As a previous NZ Grassland Association president, Marlborough Research Centre board member, Chilean Needle Grass Action Group chair, host of dryland legume research and most recently, the Beef + Lamb NZ Northern South Island rep, Warwick has shown to be up-to-speed on the science, markets and politics shaping agriculture.

He says farmers are good at following market signals and will take ownership of an idea if they understand the reasoning behind it.

"I do want to know if the agricultural emissions pricing scheme is going to be a good end-game for our markets, will it improve the environment on the farm or is it a platform for the Prime Minister to stand up and say New Zealand is great?"

"Show me the actual difference it will make to the market big picture, then I will

**Table A: If Ag is in the default option NZ ETS - A hypothetical 2030 Killsheet showing greenhouse gas tax share. Created by Country-Wide stargazers.**

Buyer: Amazon	
Grade	Lamb grassfed max protein
Weight	14.5kg-16kg
Number	110 lambs
Total Weight	1670kg
Price	\$9.05/kg
Total value	\$15,126
ETS TAX	\$0.33/kg based on a \$135 carbon price = \$551.10 (Per head \$5.11)

Note: assumes a carbon price of \$135/tonne CO<sub>2</sub>e in 2030 and 90% discount (subsidy) that phases out one percentage point a year.

make the changes needed.

"I understand farmers must play our part whether we agree with it all or not.

"When farmers get the reasons, they are more likely to buy in. The 'why' will drive the data needed and the reporting to be as efficient as possible."

He queries whether a better option entirely would be for farmers to formally measure their emissions for market advantage but not be levied on them.

**Table B: Agriculture Emissions Pricing Proposal – NZ ETS, Farm Level versus Processor Level Hybrid, Steering Group Discussion Document November 2021**

	<b>Backstop: Agriculture in the NZ ETS</b>	<b>Option 1: Farm-Level Levy</b>	<b>Option 2: Processor-Level Hybrid Levy</b>
<b>Who is responsible for reporting and paying for emissions?</b>	Meat and dairy processors, synthetic N-fertiliser manufacturers/importers.	Farms that meet the farm definition either individually or as part of a collective.	Meat and dairy processors, synthetic N-fertiliser manufacturers/importers. Farms and collectives can apply for payments via an Emission Management Contract (EMC).
<b>How are emissions calculated?</b>	Tonnes product (meat, milk solids, synthetic N-fertiliser) multiplied by a national emissions factor to determine emissions per unit of product (output)	Central calculator that includes a simple and detailed method to determine actual emissions at farm-level.	Tonnes product (meat, milk solids, synthetic N-fertiliser) multiplied by a national emissions factor to determine emissions per unit of product (output).
<b>How are emissions priced?</b>	Participants pay the carbon price of the day in NZ ETS by purchasing and surrendering NZUs, but also receive 95% free allocation, that reduces by 1 percentage point each year.	Unique levy rate for CH <sub>4</sub> and N <sub>2</sub> O broadly aligned to NZ ETS carbon price. Ministers responsible for setting the levy seek and consider the advice of an external advisory group.	Unique levy rate for CH <sub>4</sub> and N <sub>2</sub> O. Minister/s responsible for setting the levy seek and consider the advice of an external advisory group.
<b>How can emissions be offset with sequestration?</b>	NZ ETS eligible forests can be entered into the existing NZ ETS.	Emissions are directly offset by sequestration from some vegetation types not included in NZ ETS. This includes: <ul style="list-style-type: none"> <li>• Indigenous/native vegetation planted or regenerating vegetation</li> <li>• Perennial cropland (orchards and vineyards)</li> <li>• Scattered trees and small woodlots established on or after 1 January 2008 that are not NZ ETS eligible exotic forest.</li> </ul>	Rewards sequestration from vegetation types as described in Option 1 through an Emissions Management Contract (EMC).
<b>How will the revenue from the system be used?</b>	Government intends that any revenue raised through the backstop would be invested back into the agricultural sector to support further emissions reductions. This could include paying for sequestration not eligible for the NZ ETS (e.g. riparian plantings).	The revenue raised through the levy would be invested back into the agricultural sector to generate further emissions reductions through research and development or actions on-farm that help reduce emissions including uptake of new technology.	The revenue raised through the levy would be invested back into the agricultural sector to generate further emissions reductions through research and development or to reward actions on-farm that help reduce emissions via an EMC.
<b>Key advantages</b>	Low-cost system to administer/collect revenue.	Treats CH <sub>4</sub> and N <sub>2</sub> O differently. Farms who have taken early action to reduce emissions will face a lower emissions cost because emission reductions from on-farm efficiencies and mitigations are recognised in the tool to calculate on farm emissions. Farms who have taken early action to maintain and increase sequestration will be rewarded because recognised sequestration includes that associated with existing vegetation (if it meets He Waka Eke Noa requirements).	Low-cost system to collect revenue. Treats CH <sub>4</sub> and N <sub>2</sub> O differently. EMCs could make a processor-level price more effective at reducing emissions, and recognise efficiencies and mitigations taken up by farms. Provides a transitional step towards a farm-level pricing system. Farms who have taken early action to maintain and increase sequestration can be rewarded via an EMC because this includes recognising sequestration associated with existing vegetation (if it meets He Waka Eke Noa requirements).
<b>Key disadvantages</b>	Does not treat CH <sub>4</sub> and N <sub>2</sub> O differently so misaligns with emissions targets. No control over price. Does not recognise individual farms for actions they take to reduce emissions. A processor-level price is blunt and is unlikely to be effective at reducing emissions, but the revenue raised would be redirected into initiatives to help reduce sector emissions.	Setting an affordable price for all farms is unlikely to be effective at reducing emissions but the revenue raised would be redirected into initiatives to help reduce sector emissions. Potential to use rebates to maintain an incentive to reduce emissions with a lower net price but to date no practical and equitable rebates have been identified. High cost to administer both to farms (mostly in time) and implementing agency.	A processor-level price signal is blunt and does not recognise individual farms for the actions they take to reduce emissions. Price is unlikely to be effective at reducing emissions, but the revenue raised would be redirected into initiatives to help reduce sector emissions. There is potential for Emissions Reduction Contract (EMC) to recognise farms who have taken early action to reduce emissions, however, to be effective at incentivising emission reductions EMCs may require a benchmark from which to measure change. This could disadvantage those who have taken early action to reduce prior to the benchmark. The detail of how this could work is still being worked through.

“Would education and the use of reduction tools make the environmental difference we need, rather than a scheme tax?”

“I’ve made environmental changes on my farm to make my products more appealing, but without a tax to drive change.”

He acknowledges farmers collectively are faced with designing a system and backing it by the end of February, or the Government reserves the right to price agricultural

emissions in the NZ Emissions Trading Scheme (ETS) earlier than 2025.

In December he challenged his farming peers to watch the 2021 Hopkins lecture by Dr Rod Carr (the Chair of the Climate Commission) on YouTube – to understand what is driving him.

“It was interesting to hear that total emissions linked to producing a kilo of beef or lamb is about double that of pork and chicken, although off a different landscape.

“Carr’s comment to stop listening to your own bullshit was confrontational, but I agree farmers do need to look globally and be in step with wider views.”

Lissaman is not ready to pick between the proposed farm-level or processor levy options as he wants more information.

“Can landowners move between the options?”

“Whatever one I vote for, it has to be simple – with figures dropping down from

our annual accounts and easy-to-use mapping tools.

“Farmers are very busy people who can’t keep being loaded up with more stuff or costs.”

After running his farm stock numbers, fertiliser and shrub/tree areas through the GHG Calculator (Beef + Lamb NZ version) he says his number is really variable over the years. As the 400ha farm, Breach Oak, runs between 2500 to 4000 stock units, with a large trading volume, plus ‘lumpy’ fertiliser purchases, he would prefer to see a rolling three-year average figure used.

He has been planting woodlots as part of the wider farm plan and is using an environmental consultant to plan which land to retire and what to farm. His pick is that at least 10% of his land will need to be on a rotation for, as he puts it, “non-ruminant food producing” but he is unsure whether more land needs to be added over time.

Greenhouse gas emissions figures and a plan for reduction are likely to be part of my Farm Environment Plan, he says.

Across the industry, he sees the age of farmers, debt levels, and land scale will drive the amount retired into trees.

“We don’t want our landscape covered in trees as there will be much less water making it downstream – what will that do to the viticulture-based economy in Marlborough for example?”

Lissaman says any pricing scheme should have an incentive to allow turnover of stock quickly, to calculate actual days alive on the farm. It should also reward farmers who both off-set emissions and can produce the same product for less emissions.

One negative of the default NZ ETS is that it has a set tax per stock unit so does not reflect farm systems that are able to produce less emissions per kilogram of product. There would not be the commercial drive for better breed, genetics, or feed systems. Another negative is that most farm shrubland, shelter belts and pre-1990 bush does not qualify as off-sets in the ETS. 🚫



Hopkins Lecture Dr Rod Carr  
www.youtube.com/watch?v=d\_4Gj05FTNk



Many types of trees – woodlots, shelter belts, indigenous regeneration, would be eligible in the proposed greenhouse gas emissions agricultural pricing schemes by He Waka Eke Noa. This includes permanent or cyclical, such as a vineyard.

## Farm vegetation valuable?

BY: JOANNA GRIGG

**OUT THE TRUCK WINDOW ARE** shelterbelts skirting good pasture and, further back, an extensive face of kanuka, mixed with shrubs like coprosma. Will they be worth anything as offsets for greenhouse gas emissions from sheep and cattle grazing nearby?

Whether these carbon sinks become a recognised asset will be decided following farmer feedback at the emissions roadshows. If farmers back either the proposed farm-level or processor-level levy emissions scheme via the there are options to count this woody vegetation as a carbon sink. If agriculture is defaulted into the NZ ETS, it is likely to continue to go unrecognised as a carbon sink.

A yes to one of the levy options would give farms a way to offset some of the financial liability from their emissions. The bottom line is the sequestration rates would be low for indigenous species and a large proportion of the farm would need to be in indigenous shrub cover to match sheep and cattle methane costs. As time rolls on however, it’s likely the cost of sheep and cattle emissions will increase and the farm’s woody vegetation will become more valuable.

He Waka lists the basic principles they

recommend for recognising sequestration in their December 2021 discussion document. These are; the faster trees grow, the faster carbon is accumulated. Typically, exotic trees grow faster than indigenous trees. However, unharvested forests (i.e: native forests) store more carbon than clear-fell plantations over the long-term. Secondly, for a given type of vegetation at a particular location, two broad factors impact sequestration: the stage of growth, and the way it is managed.

A pinus radiata forest would be the sprinter’s approach to offsetting and eligible for the NZ ETS, so it may be worth more to have it to be counted in that scheme, rather than an agriculture emissions scheme.

In the He Waka Eke Noa Scheme more shrubland and trees are proposed to be included as carbon sinks, compared to the NZ ETS. The NZ ETS has strict species, height, age and density guidelines as well as a tendency by its administrator (Ministry for Primary Industries) to consider pre-1990 scattered shrub or trees as a forest (so ineligible).

See page p25 of the He Waka Eke Noa Discussion Document: Comparison of sequestration currently in NZ ETS and proposed in the new pricing system.

It can't be counted twice.

The amount of carbon different vegetation types sequester is finite. When vegetation is removed, it can become a source of emissions. All vegetation types that are recognised would need to be maintained in vegetation or face a liability if they are cleared (permanent categories) or cleared and not replanted (cyclical categories). This could be tricky when it comes to cyclical spraying out of hill country to maintain production. If farmers removed it, that would sit as a cost on the so-called emissions balance sheet

Understanding all this is a key issue for farmers with chunks of 'ineffective' shrub areas on their land. The pricing scheme they choose will impact pasture management decisions for the future. Some poor value scrub gullies might be rebranded by farmers as handy methane soak patches. Spraying out that regenerating kanuka may bring a liability.

Any resulting scheme is likely to classify vegetation into permanent and cyclical. Under permanent it is either woody vegetation established before 2008, with stock excluded or post-2008 established areas (possibly with a declaration form required from the landowner saying it was grazed in 1990). The third option is riparian plantings more than one metre wide with mixed species. An interesting side thought here - if planting riparian strips, don't just plant flax and toe toe. Get some trees in too.

The cyclical category vegetation is defined as vegetation that is planted and may be felled and re-established. This kind of forest is not self-sustaining and needs to be replanted to ensure its continuation. To be eligible for the system, all cyclical categories must have been planted on or after January 1, 2008. Within this are perennial crops (think orchards/vineyards planted after 2008), forest and woodlots.

NZ ETS-eligible indigenous forest would not be eligible to be entered into the agriculture pricing system. You can't double-dip.

Under the processor levy option, signing up to have sequestration onfarm recognised is optional. In this option, farms and collectives would choose to enter into a sequestration management contract voluntarily, but once established it is a legally binding contract, the December proposal suggests. This would keep administration costs lower.

Both the farm-level or processor-level options proposed would recognise sequestration onfarm by following the international accounting approach of 'additionality'. This means only 'new' or above 'business-as-usual' sequestration is rewarded. This approach ensures environmental integrity when using carbon removals or offsets to meet climate targets. Additionality is usually determined by setting a year as baseline.

Farmers will have to think back to what cover they had in 2008. The system would reward sequestration by following the additionality approach in two ways. First, setting a baseline year so any sequestration in new vegetation established on or after January 1, 2008 is considered additional. Secondly, setting a baseline of 'business-as-usual management' so that any sequestration associated with ecological/vegetation management is considered additional. The use of this baseline allows recognition of vegetation established prior to 1990. Indigenous vegetation established before January 1, 2008 would be rewarded with an annual rate. Farmers would need to provide proof of active management (stock exclusion). The amount of sequestration rewarded would depend on the age and state of the vegetation. This opens up off-setting potential for all those areas of original bush that were previously excluded.

Cyclical vegetation would be rewarded by recognising the long-term average carbon stock. This is the average carbon after considering losses from harvesting and gains from replanting.

The proposal also suggests if an area of vegetation were significantly damaged or destroyed by an adverse event, the farm would not face any penalty. It would no longer receive recognition for the sequestration in that area until it reached the same state it was in prior to the adverse event. 🌀

### CLIMATE CHANGE ACTION PARTNERSHIP:

Beef + Lamb New Zealand · Dairy NZ · Federated Farmers of NZ · Horticulture NZ · Federation of Maori Authorities · Ministry for the Environment · Ministry for Primary Industries · Foundation for Arable Research · Dairy Companies Association · Deer Industry NZ · Meat Industry NZ · Irrigation NZ · Apiculture NZ.

## BOARD COULD SET LEVY PRICE

Farmers will get more choice and control over greenhouse gas costs if they keep out of the emissions trading scheme market suggests He Waka Eke Noa.

This was outlined in its December pricing proposal to dairy and red meat farmers.

It suggests picking one of the two partnership pricing options floated, as costs would be much less than the NZ ETS. The proposed levy could be set and controlled by an advisory board with some agriculture representatives. It does add that estimated costs for the two options (farm-level or processor-level) are still to be determined.

Initial costs in the proposed Farm-Level Levy model range between \$0.09 and \$0.19/kg sheep meat and \$0.06 and \$0.29/kg beef.

If agriculture is defaulted into the NZETS then the agriculture sector would have no control over the carbon price, with demand driven by other sectors of the economy. Speculators drove the carbon price beyond \$65/NZ Unit (NZU) when units were released late 2021. The Climate Change Commission indicated that ETS charge for agriculture could start at 5% of the true price in 2025, with the portion increasing about one percent every year. By 2050 the next generation of farmers could face paying 30% of what could be a hefty emissions cost.

The idea floated by HWEN is for an advisory board to set a price, allowing a balance between agriculture interests and climate change objectives. Any levy coming in could pay sequestration offsets, and fund research to help lower stock emissions.

The official line is that farmers should expect levy prices to start at a broad base, then increase in the short to medium term to create revenue to fund sequestration and technology.

In either option, groups of farms would have the choice to register as a collective and report their emissions to reduce and offset them. Farm enterprises could link their farms and submit a single return, or industry assurance programmes could use their current systems to report on behalf of their suppliers.

Within the farm-level option, breeding farms would face more of the cost because an animal spends most of its time on this type of farm, compared to finishing. The impact will be higher for red meat farms than dairy, due to lower emissions intensity for dairy production. It would impact the viability of some red meat farming systems.

More detailed cost modelling will be presented at the roadshows. 🌀



**IF HOPPING IN THE ETS FERRARI PASSENGER SEAT WITH GOVERNMENT AND CARBON SPECULATORS AT THE WHEEL DOESN'T APPEAL, FARMERS NEED TO CONSIDER TWO COMPLETELY DIFFERENT OPTIONS.**

# Understanding GHG costs

Start thinking about sheep burps as a daily cost against farm income.

**Joanna Grigg** helps farmers get up to speed on proposed agricultural emissions pricing.

**U**p for discussion is how much administration farmers would take on, which scheme creates incentives to reduce emissions and counts sequestration, who collects the levy and what the running cost of the three proposed options will be (or whether running costs pale against the levy costs anyway).

When buying a car, a cheap deal may mean higher costs long-term – in breakdowns and parts.

Farmers should bear this in mind when reflecting on what sort of Emissions Pricing Scheme to choose out of the He Waka eke Noa options. Savings in running costs, by having a simpler administration may, in fact, mean less influence over emissions price structure, less ability to use on-farm offsets and limited ability to be rewarded for good work on mitigating emissions.

The three options on the table to test drive by 2025 are the Farmer-Level Levy, Processor-Level Hybrid Levy or, being left to government whim and being included in the NZ ETS. There is also an option to start with the simpler processor level scheme and move to the farm-level scheme over time.

The default ETS option is cheapest for farmers as they don't have to measure and report (the processors gather it per kilogram

of meat). But it is a poor performer in terms of control, choice, offsetting and recognising the split-gas approach. It exposes farmers to the open carbon market. Alarm bells sound all through the He Waka Eke Noa Booklet that was posted to red meat and dairy farmers in December. It brands the ETS option as a 'broad-based tax which is forecasted to increase significantly' and will 'strip farmers' ability to influence change'.

If hopping in the ETS Ferrari passenger seat (racing from \$65 to \$130/tonne in two years) with government and carbon speculators at the wheel doesn't appeal, farmers should get in the ute with a He Waka option. Options are the Farm-Level Levy – think in terms of a bells and whistles top-range ute with extra spending on bull bars, terrain monitoring, a stock counting APP and tree mapping tools. Or the Processor-Level Hybrid – perhaps a more middle-of-the-road ute that has a stock counting feature that only works once a year, and an all-terrain monitoring and mapping tool as an optional extra.

The proposed Farm-Level Levy is described by He Waka Eke Noa as "high cost in establishing a new report system and administration and high reporting input required from farmers."

This is because farmers would need

to run their stock numbers and fertiliser inputs through a greenhouse gas calculator, then, if they choose, measure areas of farm vegetation.

The total operating costs are estimated to be around \$113 million per annum (\$63 million cost to farmers in time spent reporting and \$50 million for operational costs) and establishment is estimated at \$142 million. This office-work reporting (or consultant fee) may put farmers off, but when it comes to actually paying the bill for the emissions levy, the annual bill may be lower in the proposed Farm-Level levy. This is because running a ruler over the farm system and counting stock numbers on the farm/day takes in fluctuating stock numbers while counting on-farm vegetation allows more offsets. This would appeal to farmers that trade, and those with less intensive farms and/or more shrubland and trees.

He Waka Eke Noa modelling of case study farms found the Farm Levy price option was slightly cheaper than the NZ ETS backstop and had a lower impact on Effective Farm Surplus. This is because it accounts for the actual length of time livestock are present on-farm, and uses emissions factors that relate to individual stock classes. In comparison, the NZ ETS backstop currently uses average emission factors for individual stock types and average lifespan.

In the Processor-Level Hybrid Levy option, emissions are calculated by the product tonnes sold (meat, milk solids) multiplied by the national average emissions per unit of product. The emission charge per sheep for example, is based on a national average, not actual days on the farm. It's a blunt instrument.

At this point, farmers might ask what's the point in all the emission reduction tools like boluses, changing feed systems, genetics or more on-farm vegetation to off-set? Farmers who finish stock faster (fewer days on the farm) would not be rewarded by having acknowledgement of less emissions generated/year. Where's the commercial incentive for environmental improvement?

What saves the processor-Level option is adding on a voluntary option for farmers (either individually or in collectives) to enter into an emission management contract or a sequestration management contract or both. This EMC, as it is known, is where farmers show they use tools to reduce emissions from their stock. The sequestration management contract is where farmers show they have areas of shrub vegetation/trees sequestering carbon and get the benefits of this. It's a way of offsetting and reducing the charge billed via the processor. These would be voluntary but, once established, the contracts will be legally binding.

Any option that takes in on-farm vegetation would appeal to farmers with non-ETS older blocks of indigenous forest. Farmers that took early action to increase sequestration will be rewarded. Orchards and vineyards get a chance to be included in this too.

The Processor-Levy Hybrid is described as having "medium cost compared to other options". Processors will administer the reporting and charge on to farmers. How the options compare is laid out in Table B on page 23 but the real detail is in the 31 page November Discussion Document (available via Beef + Lamb NZ website). He-Waka-Eke-Noa-Farmer-Engagement.pdf (beeflambnz.com). 📄



## Better reward if bail from ETS

BY: JOANNA GRIGG

**F**armers would be better off if they pick an He Waka Eke Noa emissions pricing option according to Beef + Lamb NZ chief executive Sam McIvor.

Case study analysis of 16 different farm types was done in November by He Waka showing expected changes in effective farm surplus (EFS) with an emission 'tax' in place via the NZ ETS.

The conclusion was, at this price and proportion, the bottom-line effect is such that it would "impact the viability of some red meat farming systems". North Island intensive EFS was modelled to drop the most by 2030 (by 14%) while North Island Hill was down 10%. South Island Hill EFS looked to be impacted by 8% while South Island deer EFS was down 8.4%. Annually this was about \$20,000. Dairy farm surplus was projected to be down 5%.

But despite the cost, the change in actual greenhouse gas emissions from agriculture is expected to be down less than one percent than 2017 levels. This point needs to be front and centre.

In the ETS farmers would not have a way to be rewarded for change, or for most farm vegetation offsets but would get stung at a projected 33c/kg sheep meat, 20c/kg beef

and 43c/kg venison by 2030. Fertiliser 'tax' is expected to be 7c/kg N at this point in time and increasing each year. Carbon price is expected to be about \$138/tonne in 2030 but, most importantly, only 10% of the true cost would be allocated on to farmers (90% subsidy rate). This subsidy drops one percent each year. If the full market carbon equivalent costs were charged, most farms would be out of business – no question.

He Waka have come up with bespoke pricing schemes that are both carrot and stick. They have rewards for farmers for reducing greenhouse gases and importantly, a price cap to keep them cheaper than the ETS about 4-5% reduction by 2030. Under the ETS option, agriculture is unlikely to see reductions of one percent. This is the point of the whole exercise.

McIvor predicted the cost to farmers is hard to pin down although they are working on it. Modelling the farm surplus under the alternative options (farm-levy or processor) is a hugely complex task.

He said the cost to a farm depends on many unknowns such as market price, adoption rate of methane reduction tools by farmers and sequestration rates.

"Models are a useful guide but we have to be careful relying on them to drive decision making.

**Table C: Effects of Greenhouse Gas ‘costs’ on Effective Farm Surplus if agriculture remains defaulted into the NZ ETS, Modelling in Discussion Document, November 2021 He Waka Eke Noa.**

Case study farms: Case study analysis on 16 different farm types shows the direct impact of price under the different pricing system options, and the impact on EFS.

Farm Type	2025 (\$85/tonne CO <sub>2</sub> e, 95% discount) *		2030 (\$138/tonne CO <sub>2</sub> e, 90% discount)	
	Price	% change in EFS	Price	% change in EFS
North Island Hill Country	\$6348	-3.2%	\$20,613	-10.2%
North Island Intensive	\$6515	-4.5%	\$21,156	-14.7%
South Island Hill Country	\$4772	-2.5%	\$15,496	-8.3%
South Island Deer	\$5903	-2.6%	\$19,168	-8.4%
South Island Mixed Cropping	\$7502	-2.4%	\$24,358	-7.8%
Māori Agribusiness sheep and beef range**	\$10,138-\$18,515	-3.2% - -1.9%	\$32,918 - \$60,119	-6.2% - -10.4%
Canterbury Dairy	\$16,850	-1.7%	\$54,712	-5.5%
Taranaki Dairy	\$5683	-1.7%	\$18,452	-5.5%
Waikato/Bay of Plenty Dairy	\$6607	-1.7%	\$21,452	-5.6%
Māori Agribusiness dairy range	\$6419 - \$10,756	-1.4% - -6.2%	\$20,843 - \$34,925	-4.6% - -20.1%

\*Prices in line with Climate Change Commission price assumptions for NZU price.

\*\* Māori Agribusiness sheep and beef case study farms carry more stock units than the other sheep and beef case study farms.

“It’s an ongoing process as we lead up to the consultation phase.”

Both the farm and processor options look to have a levy rate for methane and nitrous oxide broadly aligned to NZ ETS carbon price. As to the actual price of the levy, He Waka states “Ministers responsible for setting the levy seek and consider the advice of an external advisory group”. Looking more closely under the bonnet and giving each scheme a test drive is the only way that the true cost and mechanisms will be revealed.

McIvor said sheep and beef farms are less efficient at converting feed to product than dairy. This means they are more vulnerable than dairy if the chosen scheme counts costs on a per kilo basis.

“Our industries are so integrated however, that dairy and sheep and beef have agreed to partner together to find a pricing system that works for all.”

The farm levy option is the fairest for recognising and rewarding what is happening on the farm.

As technology for reducing methane from stock is in its infancy, starting with the processor levy and moving to farmer levy may be simpler for administration. This also gives time for vegetation mapping tools to become easier and cheaper to use.

The Processor-Levy may favour breeders

### “MODELS ARE A USEFUL GUIDE BUT WE HAVE TO BE CAREFUL RELYING ON THEM TO DRIVE DECISION MAKING.”

over finishers (the levy would be taken off meat income). Finishers will factor this in margins paid to breeders however. The stock agent spiel will now include reference to emissions tax. A Farm Level Levy may result in an overall cheaper farm emissions bill than the Processor Level Levy.

McIvor said the industry should find a balanced scheme – one that brings in revenue to match the level of rewards going out.

“It needs revenue to invest in future technologies to reduce emissions and to reward sequestration.”

### Transition option might be best

Sam McIvor wants to hear what farmers think of the He Waka Eke Noa agricultural greenhouse gas pricing options. He says the organisation doesn’t have a firm position at the moment whether processor or farm level is best.

But changes to the options put forward by He Waka Eke Noa in January 2022 have seen a new option come forward – a transition option to go from a Processor-

Level Levy to a Farm-Level levy over time.

“We consulted with target farmer groups and this came up as an option.”

McIvor sees the advantages.

“It gives time for farm mapping tools to improve, to make the administration cheaper and gives time for methane reduction technology to roll out.”

Farmers can voluntarily enter contracts to record either their emission reduction work onfarm, and/or their sequestration.

“The latest suggestion is to split them out as it adds flexibility for farmers who may not want to do both.”

The biodiversity study by Beef + Lamb NZ showed that, since 2008, farms have added to areas eligible for sequestration. The average area per farm is unknown, he says.

“But this is a real benefit to New Zealand and should be recognised.”

McIvor has a high degree of confidence that agriculture can reduce greenhouse gas emissions, although the organisation does not agree with the current government reduction targets.

“That is another issue and is being tackled by advocating to the Climate Change Commission.”

“We need a cost-effective and practical method to support these reductions and a workable scheme is what we need to be focused on developing.”