| Speaker         | Question text   | Score | Status | User Name | Sentiment | Submission Date | Answer  |
|-----------------|---|-------|--------|-----------|-----------|-----------------|---|
| Dr Julie McDade | Julie - who will audit the legitimacy of scope 3 target reporting? Great talk by the way!   | 1     | Live   | Anonymous | positive  | 03/13/2024      | Good question! The first problem/question is how do you standardise international GHG emissions reporting? Obviously, the answer is extremely complex and challenging. The OECD is leading a piece of work on this. At the moment, especially if you're going to make any claims regarding your emissions, you need to seek third party verification to established ISO standards. There are currently ISO standards for GHG emissions calculations and reporting.  |
| Helen Beattie   | Helen Does NZ Animal Welfare act help or hinder our ability to make functional changes to the lives of farm animals in NZ. Why/Why not.                       | 0     | Live   | Anonymous | neutral   | 03/13/2024      | Our primary legislation – the Animal Welfare Act 1999 – is a pretty good piece of legislation. The issues arise from the Codes and regulations that it enables which directly undermine the purpose of the Act; there are vagaries that are unhelpful for enforcement (i.e., section 4: 'adequate shelter' – how does that get enforced?) additionally, there is poor or no enforcement of parts of the legislation (e.g., see section 4 again – requires adequate shelter (shade) yet that isn't provided for thousands of cows in Canterbury).  FINAL COMMENT  None of these questions nor answers can be considered in isolation – they are all part of what needs to be addressed as part of unpicking the wicked problem that is the bit of agriculture that is unhealthy – where costs are socialised, and gains are capitalised.   |
| Dr Julie McDade | Julie- are all processors up to same level of reporting to markets as Greenlea is for their producers?  | 2     | Live   | Anonymous | neutral   | 03/13/2024      | At the moment, only listed and financial companies are captured by the requirements of the Climate Standards Reporting framework. The work that Greenlea has done has been entirely voluntary. We do not have to report our emissions to any overseas bodies/markets. At present, the only customer who has indicated that they would like us to report our Scope 3 emissions is McDonald's.  |
| Dr Julie McDade | Dr. McDade, what demand are you seeing from consumer (vs.customers) for emissions profile clarity and emissions reductions?                                   | 1     | Live   | Anonymous | neutral   | 03/13/2024      | I have just returned from a week in the States looking at exactly that. I could find no evidence that there is a premium or price deferential for "reduced", "low" or "zero" carbon products. Even at the most upmarket, exclusive, boutique grocery stores, the call outs on red meat were the same that we've been seeing higher welfare, grass fed, pasture raised, Antibiotic free and GMO free. I also didn't see carbon call outs on products in other categories.  |
| Dr Julie McDade | How do our farmers quantify or prove that we are not contributing to deforestation in the EU?   | 1     | Live   | Anonymous | neutral   | 03/13/2024      | The EU legislation is very specific. We must provide the GPS coordinates for each farm that contributed to any product in a consignment. I assume that they will then do spot audits of incoming consignments and verify no deforestation (since December 2020) via satellite imagery. The legislation is silent on the "how".  |
| Dr Julie McDade | Julie, what benefits are Greenlea realizing as early adopters of change, and how can that encourage others to act ahead of regulation?                        | 1     | Live   | Anonymous | neutral   | 03/13/2024      | In our farm environment plan workshops, we found that farmers were grateful for assistance. I think they also found that much of what is required is what they already empirically understand it's just putting it into a format that's the hard part. Anecdotally, we also know that farmers who have been working within the framework of a "farm environment plan" (it may not have originally been called that!) are more profitable. Farming in balance with nature requires decision making that might be called "regulation" but, in reality, is just good farming.  |
| Dr Julie McDade | How should the sector be better arranged to meet global market needs? Seems being with certain exporters gives advantage to a few!                            | 0     | Live   | Anonymous | neutral   | 03/13/2024      | Two weeks ago, I attended the World Agri-Tech Conference in San Francisco. The opening panel included statements by Robert Bonnie, undersecretary for farming for the USDA. He made a point that the USDA is making policy WITH agriculture and not AT agriculture. Seems sensible.   |
| Dr Julie McDade | Regulation in NZ and expectations from our markets have a real potential to hamstring our sector. How do we streamline expectations while supporting farmers? | 0     | Live   | Anonymous | neutral   | 03/13/2024      | See previous answer. Agriculture has an opportunity to be part of the solution for climate change. While many countries have "industrialised" farming and are now highly reliant on fossil fuels, New Zealand, with its primarily pasture raised, grass fed systems, has maintained a more traditional approach. Globally, educated consumers now associate New Zealand's style of farming as better for themselves, the animals, and the planet. In the USA, "regenerative agriculture" is now being highly promoted (and funded USDA has \$19.1 billion for regen projects) as a way to restore balance, recover endangered ecosystems, and combat climate change (by pushing carbon into depleted soils). New Zealand can "add value" simply by promoting the positive aspects of its regenerative style. There is an opportunity to reward farmers and growers for ecosystem services. Profitable farms are the backbone of our economy but also our rural communities. When farmers prosper, we all prosper.   |
| Helen Beattie   | How do animal welfare practices affect international consumer purchases?  | 0     | Live   | Anonymous | neutral   | 03/13/2024      | Animal welfare, like environmental welfare, is gaining traction as a key concern for discerning consumers. We need to be mindful that it is the discerning consumers to which this statement applies – those in Gaza (and other places) are keen just to get food and water and stop being slaughtered in a genocide supported by global inaction.  The tradeable nature of animal welfare (and environmental welfare, per answer in 1 above) was evidenced when the European Commission, that in the face of food insecurity and cost of living, rolled back their commitment to 'end the cage age.' The challenges are real regarding promoting and achieving acceptable lives for our animals.  The good news is, the that by and large though with some exceptions, if we get the land use right and do the right thing for the environment (e.g., have trees to reduce trans-evaporation, and increase biodiversity; no cows living on mud in the winter) then we tend to get better animal welfare outcomes.  A key issue at the moment is that we don't have a robust on-farm assurance programme for animal welfare. What we have is old and out of date: for example, NZFAP+ has a biosecurity module in the animal welfare section and is based on Five Freedoms not contemporary animal welfare methodology.  We urgently need meaningful assurance for our animals. |
| Dr Julie McDade | If you had unlimited resources, support, putea (cash) what would you do to get traction and the desired outcomes needed to be best practise/world class?      | 0     | Live   | Anonymous | neutral   | 03/13/2024      | See previous answer. I would reward our "good" farmers for their contribution to ecosystem services farming in balance with nature, retiring vulnerable land, embracing higher welfare standards, regenerating native bush in areas that aren't productive, etc. I'd mop up the laggards and find cost effective ways to get these farms into the hands of the next generation who desperately want to farm but can't afford the land. Then I'd crank up the PR and marketing machine to make sure that customers in our key markets know that we're turning agriculture into the solution for climate change.  |
| Richard Fowler  | Richard- great talk! You dropped N use by 80% since 2018has your pasture harvest dropped much?  | 0     | Live   | Anonymous | positive  | 03/13/2024      | Thanks. According to overseer, pasture harvested in 2020, 2021, 2022 was actually higher than in 2018 (no data for 2019). It below in 2023 but I think that was more about the 4 meters of rain and the subsequent pasture/soil damage.   |
| L               |   | _     |        |           | neutral   | 03/13/2024      | We haven't measured clover composition so hard to say sorry. We get plenty of bloat so maybe ;)   |

| Speaker             | Question text  | Score | Status   | User Name | Sentiment | Submission Date | Answer   |
|---------------------|--|-------|----------|-----------|-----------|-----------------|--|
| Richard Fowler      | Many farmers comment on issues with achieving persistence with plantain. How are you ensuring it persists on your          | 1     | Live     | Anonymous |           | 03/13/2024      | We're still working out how much seed we need to add in every year (with fert) to maintain 20% clover in the pasture. The first        |
|                     | farm?  |       |          | , , , ,   |           |                 | year we put 4kg across the whole farm and this year we've done 2kg over some and none over the rest to see what happens.               |
|                     |  |       |          |           |           |                 | Apparently we have some of the highest levels in the lake catchment and I suspect that's to do with the low N levels and               |
|                     |  |       |          |           |           |                 | therefore less competition from rygrass.   |
| Richard Fowler      | Richard - 'using cell grazing / collars to get better animal welfare.' How has this "better welfare" claim been assessed;  | 1     | Livo     | Anonymous | neutral   | 03/13/2024      | Currently we run our 2 yr olds steers in big mobs (100) in big paddocks with only one water trough. With Halter (and more water        |
| Kicilalu Fowlei     |  | 1     | Live     | Anonymous | lleutiai  | 03/13/2024      |  |
|                     | who provided that expert advice?   |       |          |           |           |                 | troughs) we'll be able to have them in smaller groups (20) on more regular shifts so the plan is that they'll have less social stress, |
|                     |  |       |          |           |           |                 | easier access to water, more shifts and better pasture quality. I'm also hoping we get less lameness because they won't be             |
|                     |  |       |          |           |           |                 | running around the hills so much and there should be less heat stress because they'll grow faster over the spring and will be          |
|                     |  |       |          |           |           |                 | slaughtered before the hottest months. Expert advice was provided by an experienced beef farm consultant and my 25 years of            |
|                     |  |       |          |           |           |                 | farming.   |
| Richard Fowler      | How can we change the message? If farmers make their own changes, regulation wouldn't be needed                            | 0     | Live     | Anonymous | neutral   | 03/13/2024      | That's a big question! I think regulation of some sort needs to be part of the mix but at the moment it's extremely punitive and       |
|                     |  |       |          |           |           |                 | heavy handed. I'd love to see more of a community approach to how land is managed instead of us vs them.                               |
| John Burke          | Did you, or the council, drive that initial land plan? If it was the council, were you all already open to it?             | 1     | Live     | Anonymous | neutral   | 03/13/2024      | BOPRC initiated the need for environmental restoration on the farm however Beef & Lamb NZ provided the resources                       |
|                     |  |       |          |           |           |                 | development of a Land Environmental Plan (LEP) (LEP1 Basic, LEP2 2nd stage & LEP3 Advanced) all which we completed.                    |
| John Burke          | Why did you plant natives on LUC6e as compared to space planted poplars/willows?   | 1     | Live     | Anonymous | neutral   | 03/13/2024      | 4 Reasons: Space plantings would not have aleviated the ongoing issue of gorse control, natives would provide a bird corridor          |
|                     |  |       |          |           |           |                 | from the Kaimai DOC estate to other lowland areas of native bush, natives would provide certainty regarding long term carbon           |
|                     |  |       |          |           |           |                 | capture and ETS registration, natives provide much better long term asthetic value   |
| John Burke          | How much of the planting was funded externally? At \$ 21 profit, not from farm.  | 1     | Live     | Anonymous | neutral   | 03/13/2024      | We have received approximately 50% assistance from BOPRC and Project Parore (MFE) for our native plantings, fencing, weed &            |
|                     |  |       |          |           |           |                 | pest control. This level of assistance is essential to help farmers to implement native planting retirement as they simply do not      |
|                     |  |       |          |           |           |                 | have the cash to pay for the work themselves. The \$21/ha is an example of what a drystock farmer may be making from this class        |
|                     |  |       |          |           |           |                 | of land based on drymatter production without adjusting per ha and per su costs.   |
|                     |  |       |          |           |           |                 |  |
| John Burke          | Is there a role for NZ Superfund and the Insurance Industry to invest in land use changes across NZ?                       | 2     | Live     | Nic       | neutral   | 03/13/2024      | Definitely! The carbon economics promoted by https://pureadvantage.org/recloaking-papatuanuku/ would appear to support                 |
|                     |  |       |          |           |           |                 | investment in this area without taking account of the economic benefits of much improved resilience to cyclonic events like            |
|                     |  |       |          |           |           |                 | Gabrielle  |
| John Burke          | John, has your EBIT (ie, setting aside changes in debt servicing and tax) improved in parallel to the footprint reduction? | 0     | Live     | Anonymous | neutral   | 03/13/2024      | Despite a 25%+ reduction in effective grassed area, our total pastoral enterpise EBIT in real terms has not decreased. This is due     |
|                     |  |       |          |           |           |                 | to increased subdivision providing better pasture management and grazing utilisation and demonstrating that marginal                   |
|                     |  |       |          |           |           |                 | profitability of the LUC6e, riparian margin and CSA (wetlands) that have been retired. Add to this the income from production          |
|                     |  |       |          |           |           |                 | forestry and carbon from the land taken out of pasture then our total EBIT has definitely improved.                                    |
|                     |  |       |          |           |           |                 |  |
| John Burke          | John, weed control requires a lot of toxic chemicals like Glyphosate. What alternatives are there                          | 1     | Live     | Anonymous | neutral   | 03/13/2024      | Very few unfortunately particularly if we have to deal with eco-system destroyer weeds such as Japanese honeysuckle, old mans          |
|                     |  |       |          |           |           |                 | beard, climbing asparagus etc. Our Regional Councils have let us down when it comes to weed control biosecurity. Whilst there is       |
|                     |  |       |          |           |           |                 | some hope that some biocontrols may work we havent got time to wait. Urgent strategic mangement of weeds [and animal                   |
|                     |  |       |          |           |           |                 | pests] at catchment scale is required to ensure the longterm success of that native planting across NZ. This will require use of       |
|                     |  |       |          |           |           |                 | toxic chemicals the amount of which will depend on how proactive and smart we are in implementing integrated weed and                  |
|                     |  |       |          |           |           |                 | animal pest mangement into our native planting programs.   |
|                     |  |       |          |           | ļ .       |                 |  |
| John Burke          | John - how's your Zostera now?   | 0     | Live     | Anonymous | neutral   | 03/13/2024      | Still at zero ha :- ( But we are now at a stage where the sediment plates in our estuary are more or less stable. The next stage       |
|                     |  |       |          |           |           |                 | is to assess whether we can introduce Zostera on the current substrate or do we need to intervene and remove some of the               |
|                     |  |       |          |           |           |                 | sediment to allow Zostera to establish? Chesapeake Bay (USA) has successfully established seagrass so we need to research what         |
|                     |  |       | <u> </u> | +.        | ļ         |                 | is required.   |
| John Burke          | John, the weed growth in the BOP is alarming. Manual/physical eradication is probably not the answer. Is anyone            | 0     | Live     | Anonymous | negative  | 03/13/2024      | Our Regional Councils (including BOPRC) have let us down when it comes to weed biosecurity. Whilst there is some hope that             |
|                     | working on bio-control?  |       |          |           |           |                 | some biocontrols may work we havent got time to wait. Urgent strategic mangement of weeds [and animal pests] at catchment              |
|                     |  |       |          |           |           |                 | scale is required to ensure the longterm success of that native planting across NZ. This will require use of toxic chemicals the       |
|                     |  |       |          | 1         |           |                 | amount of which will depend on how proactive and smart we are in implementing integrated weed and animal pest mangement                |
| Labor Dovel         |  | 1     | ļ.,.     |           |           | 02/42/2224      | into our native planting programs.   |
| John Burke          | JB - Is your model on Pukekauri applicable to the average owner? In other words, did you tip in a lot of outside cash to   | 0     | Live     | BD        | neutral   | 03/13/2024      | Yes it is; although the last 7 years we have been able to accelerate the rate of land retirement because of access to additional       |
|                     | make this work?  | 1     |          | 1         |           |                 | kiwifruit income Without this completion of our plan would have taken longer. The other key point is that since 2016 my                |
|                     |  | 1     |          | 1         |           |                 | brother has been managing the pastoral farming operation whilst i had the know how and time to focus on the environmental              |
|                     |  | 1     |          | 1         |           |                 | work (tree planting & weed and animal pest control). This has also assisted greatly the completion of the program and highlights       |
|                     |  |       |          |           |           |                 | the need (via catchment groups and RC) to organise resources to assist environmental work without overburdening the farming            |
| Dr Kit Rutherford   | Kit, will achieving 400 t N/yr improve lake Rotorua water quality or just maintain it at current standards??               | 1     | Live     | Graham    | neutral   | 03/13/2024      | operation.  400 tN/y is the estimated load in the 1960s before there was widespread concern about phytoplankton blooms. There were     |
| וטו אונ אמנוופווטוט | INIC, WITH GUITEVITIE 400 C 19/91 HTTPTOVE TAKE NOTOTUG WATER QUALITY OF JUST HIGHTLAND IT AT CUTTETIL STANDARDS!!         |       | Live     | Granani   | lieutiai  | 03/13/2024      |  |
|                     |  | 1     |          | 1         |           |                 | problems with macrophytes at that time. The scientific consensus was that 400 t/y would result in a lake that was clearer, with        |
|                     |  | 1     |          | 1         |           |                 | fewer and less severe phytoplankton blooms but with more macrophytes. So better than its current state, but not like Taupo.            |
|                     |  | 1     | l        | 1         |           |                 |  |

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|------------------|--|-------|--------|-----------|-----------|-----------------|---|
| Te Kapunga Dewes | Should we be making a distinction between emissions reductions vs. emissions offsets? Right now, the ETS is only | 0     | Live   | Anonymous | neutral   | 03/13/2024      | I believe you are asking should we distinguish between emissions reductions and removals and answer accordingly.                                    |
|                  | driving emissions offsets  |       |        |           |           |                 | By way of explanation, removals are what forests do – remove carbon from the atmosphere. An offset is where we cut down a                           |
|                  |  |       |        |           |           |                 | forest, but offset it with another forest which theoretically has no change to carbon in the atmosphere.  |
|                  |  |       |        |           |           |                 | So, we do distinguish between reductions and removals.  |
|                  |  |       |        |           |           |                 | Reductions in the ETS - very oversimplified:  |
|                  |  |       |        |           |           |                 | Emitters must surrender varying amounts of carbon units to the govt every year i.e. BP = circa 4M Fonterra = 11M and so on. The                     |
|                  |  |       |        |           |           |                 | total per annum is circa 38M. NZ's total emissions are circa 80M per annum but agriculture is exempt from having to pay for its                     |
|                  |  |       |        |           |           |                 | emissions and our country's targets must be achieved from only half of our total emissions as a result.   |
|                  |  |       |        |           |           |                 | Emitters buy these from the government who "create" them out of nothing and sell them at quarterly auctions (circa 25M per                          |
|                  |  |       |        |           |           |                 | annum). For clarity, there is NO FOREST nor any carbon sequestration backing the units sold by the govt, they are purely a form of money generation |
|                  |  |       |        |           |           |                 | Or they can use the (circa 8M) free allocation given away by the govt.  |
|                  |  |       |        |           |           |                 | Or they can buy them from the owners of the units created by actual forests (circa 6M per annum)  |
|                  |  |       |        |           |           |                 | Emitters add the cost of these units into Cost of Goods Sold and therefore the price for their goods is likely to increase and create               |
|                  |  |       |        |           |           |                 | a price signal that "encourages" us to use alternate source i.e. petrol becomes too expensive so we buy electric vehicles.                          |
|                  |  |       |        |           |           |                 | We are seeing emissions reductions, but not at the speed or volume that we would like to if we are to reach our climate targets.                    |
|                  |  |       |        |           |           |                 | Based on what we read in the media, we are lead to believe the only thing the ETS is doing is driving removals through farm                         |
|                  |  |       |        |           |           |                 | conversions. However the scale and pace of removals is nowhere near where it needs to be (20K – 30K HA of new planting every                        |
|                  |  |       |        |           |           |                 | year) if we are to achieve our climate goals. Because the govt keeps responding to what their constituency read in the media, it                    |
|                  |  |       |        |           |           |                 | keeps trying to alter the ETS and regulation which only causes uncertainty. The ETS is a market, and like any market                                |
|                  |  |       |        |           |           |                 | (stockmarket), it will punish any uncertainty. As a consequence the price of carbon is lower than it should be, and not driving                     |
|                  |  |       |        |           |           |                 | neither reductions nor removals as it should be.  |
| Te Kapunga Dewes | Is the economic of \$1500 /ha perpetual or only for first 17 years?  | 0     | Live   | Anonymous | neutral   | 03/13/2024      | Perpetual for at least 75 years.  |
| Te Kapunga Dewes | How long are the expected returns from carbon expected to last?  | 2     | Live   | Anonymous | neutral   | 03/13/2024      | From a permanent forest in the ETS – at least 75 years.   |
| Te Kapunga Dewes | Why is there a difference between permanent Manuka and permanent native? Where is the distinction?               | 0     | Live   | Anonymous | neutral   | 03/13/2024      | There is no distinction in the ETS carbon lookup tables, which is the problem with the tables only (where you enter the ETS with <100HA).           |
| Te Kapunga Dewes | Can farmers both sell their carbon in the ETS use it to offset their own emissions?                              | 0     | Live   | Anonymous | neutral   | 03/13/2024      | There is no clarity from govt on this for Farmers yet. It is assumed so but not confirmed.  |
| Te Kapunga Dewes | How will removing clonal poplars from hardwood category in the ETS impact farmers choices for AgroForestry?      | 1     | Live   | Nic       | neutral   | 03/13/2024      | Poplars are in the softwood other category and removing them will give more accurate carbon sequestration – this may benefit                        |
|                  | ,  |       | -      | -         |           | , -,            | Agroforestry options where Poplar are the preferred species.  |
|                  |  |       |        |           |           |                 |   |

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|--------------------------|--|---------|----------------|------------------------|-----------|----------------------------|---|
| Speaker Te Kapunga Dewes | Question text  There has been a number of sheep and beef farms being sold to forestry, do you see this continuing and being a good solution for the future?  | Score 1 | Status<br>Live | User Name<br>Anonymous | 1         | Submission Date 03/13/2024 | Answer  There are a number of answers to this question depending on perspective and I will try to cover a few concisely.  First, the ability of a land holder to sell the land for whatever purpose they choose, if not simply a financial transaction is entirely up to the landowner.  I Note that forestry demand driven by carbon and forestry returns in general has driven the price of what was traditionally sheep and beef country land up by as much as \$5,000 per hectare which has got to be good for the individual farming entities.  Second, we have approximately 10 million hectares in New Zealand, of pasture, agricultural land.  We only have somewhere between 1.5 in 1.8 million hectares of plantation forestry. Therefore, there is significant opportunity to reforest the areas of pasture land that are best utilised or converted into forestry applications.  The amount of this land that "should be" converted is debatable depending on who you are. However, in general, my opinion is that we have ample room to convert 1 to 2 million hectares of current pasture land in into forests, particularly on the less arable More erodible more steep, more inaccessible land areas.  Finally, I have been very open about the fact that environmentally speaking, any forest is better than pasture when it comes to soil stability. water quality and clarity, reducing erosion, increased biodiversity, carbon sequestration and the like.  Therefore, any transition of pasture into forests is in my view a good outcome for the country, and certainly supports a view that increased afforestation will assist in the battle against global warming.  |
|                          |  |         |                |                        |           |                            | So in summary, yes I do think this is a good progression and point out that it is not occurring nearly as fast as some would have us believe. In 2023 we "probably" (awaiting official publication) reached the same level of exotic afforestation in NZ, as we had in the late 1990's.   |
| Jacqui Macalister        | Jacquie, why does it have to be a question of premium v access. Surely they are complementary and aligned  | 1       | Live           | Anonymous              | neutral   | 03/13/2024                 | Indeed Premium and Access are complementary and its not an either/or however it is currently more about gaining access than gaining a premium and that is an opportunity to be addressed.   |
| Jacqui Macalister        | What's the difference between introduced trout and introduced lamb/ cows/ pigs? The issue appears in fact to be that Trout are the canary in the mine.       | 1       | Live           | Anonymous              | neutral   | 03/13/2024                 | I'm not sure if this question is meant for me, but trout are wild species and lamb cows and pigs are farmed, which may explain why trout are the canary in the coal mine.   |
| Jacqui Macalister        | Jacqui, such a wonderful talk thank you! Do companies distinguish methane as seperate to other GHG reduction needs?  | 0       | Live           | Anonymous              | positive  | 03/13/2024                 | Companies the to align to the GHG Protocol, which companies use as a measurement methodology, it typically expresses greenhouse gases in terms of the carbon dioxide equivalent (CO2).  |
| Jacqui Macalister        | What's the interest rates for green and all loans  | 0       | Live           | Alison                 | neutral   | 03/13/2024                 | The discount may be up to 1% on the interest rate of the loan. However the decision is made utilising standard credit risk assessment that influence the interest rate.   |
| Jacqui Macalister        | Jacqui, will BNZ Lend for exotic plantation forestry on farms?   | 1       | Live           | Graham                 | neutral   | 03/13/2024                 | We will accept as "green" plantation forestry that has been certified by Forest Stewardship Council (FSC) or the Programme for the Endorsement of Forest Certification (PEFC) Australia and New Zealand Standard for Sustainable Forest Management.   |
| Helen Beattie            | Why does govt support the industry sales-driven production model causing concerns discussed today: water quality, GHG, animal health, financial constraints? | 2       | Live           | Anonymous              | neutral   | 03/13/2024                 | Historically, (e.g., after the industrial revolution and more recently, in the 1990s) there has been intensification of agriculture (and generally, more environmentally costly ways of living). In the 1990's, the National Government's 'double exports' initiative drove the rapid land use change that included significant and rapid intensification ('Intensive Farming Systems: High density operations that rely on externally sourced resources/supplements and mechanisation/environmental control to meet the animal's needs.' ), particularly in the dairy sector. These practices extended many farming systems to operate beyond the ecological systems' capacity to assimilate the impact of such practices and waste generated.  These practices also contributed to a growing economy and higher GDP – both of which are erroneously considered desirable and better despite being wrong-goals. This is despite it being widely known the GPD is not a measure of success nor happiness. Its creator even noted this:  Kuznets warned US Congress not to focus too narrowly on GNP or GDP: "The welfare of a nation can scarcely be inferred from a measure of national income," he said.  There is essentially a complete lack of any meaningful acknowledgement and even less policy that realises the costs of perpetual growth and a GDP focused-agenda – those costs are largely the externalised costs to the land, water and the animals.  An interesting point to note, is that if we farmed inside the planet's limits, we wouldn't be worrying about methane from farmed animals – it's our ecological overshoot, driven by perpetual growth that is the cause of the climate crisis, not climate change itself, which is a symptom of overshoot.  FINAL COMMENT  None of these questions nor answers can be considered in isolation – they are all part of what needs to be addressed as part of unpicking the wicked problem that is the bit of agriculture that is unhealthy – where costs are socialised, and gains are capitalised. |

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|-------------------|--|-------|----------|------------|-------------|-----------------|--|
| Helen Beattie     | Do we need to shift to protein production from insects as the World Economic Forum suggests?                                   | 0     | Live     | Anonymous  | neutral     | 03/13/2024      | No – what we need are light, local and biodiverse farm systems, that are low energy and inside environmental limits (yes –             |
| Thereit Beattle   | bo we need to sime to protein production from insects as the world Economic Forum suggests:                                    | "     | LIVE     | Anonymous  | neutrai     | 03/13/2024      | that will be very different, AND you CAN do it!).  |
|                   |  |       |          |            |             |                 | Taken from https://www.mpi.govt.nz/dmsdocument/55648-Farm-to-Processor-Animal-Welfare-Forum-Terms-of-Reference-                        |
|                   |  |       |          |            |             |                 | Jan-2023   |
|                   |  |       |          |            |             |                 | https://www.weforum.org/agenda/2021/12/stakeholder-capitalism-episode-1-a-brief-history-of-gdp   |
|                   |  |       |          |            |             |                 | Few people are across the significant and very real limits to our transition to a 'rebuildable' (cf renewable, because all             |
|                   |  |       |          |            |             |                 | components of wind and solar need rebuilding every 20-25 years).   |
|                   |  |       |          |            |             |                 | (Footnote 3: TLDR; there's no such thing as a renewable (aka rebuildable) economy because:   |
|                   |  |       |          |            |             |                 | 1. We don't have enough minerals nor materials (mins and mats) to do the transition (and definitely not more than once when            |
|                   |  |       |          |            |             |                 | the rebuildables need rebuilding in 20-odd years);   |
|                   |  |       |          |            |             |                 | 2.additionally, we can't do it fast enough to meet climate needs; and finally;   |
|                   |  |       |          |            |             |                 | 3.that means rebuildables will soon start escalating in price.)  |
|                   |  |       |          |            |             |                 | Modelling shows that we might have enough mins and mats to transition once, but we can't do it twice and currently there is            |
|                   |  |       |          |            |             |                 | extremely limited recycling available (this will ramp up) to make this a viable option. See here for webinar on these limits.          |
|                   |  |       |          |            |             |                 | Farm systems need to be harnessing the sun's energy and converting to it to food, including through animals that have always           |
|                   |  |       |          |            |             |                 | existed in our ecosystems. Monocultures, whether they are plants, insects or animals, not healthy, and creating food in vats           |
|                   |  |       |          |            |             |                 | made of steel with all the embedded energy is non-sensical and will be unaffordable in a low energy world. Vertical farms              |
|                   |  |       |          |            |             |                 | have failed for this reason already.   |
|                   |  |       |          |            |             |                 | FINAL COMMENT  |
|                   |  |       |          |            |             |                 | None of these questions nor answers can be considered in isolation – they are all part of what needs to be addressed as part           |
|                   |  |       |          |            |             |                 | of unpicking the wicked problem that is the bit of agriculture that is unhealthy – where costs are socialised, and gains are           |
|                   |  |       |          |            |             |                 | capitalised.   |
|                   |  |       |          |            |             |                 |  |
| Helen Beattie     | How do we increase understanding of Biodiversity as a must have rather than nice to have?                                      | 1     | Live     | Anonymous  | negative    | 03/13/2024      | Monocultures require lots of inputs to prop them up, whether that's a caged hen, a plant monoculture or intensive dairy farm.          |
| Helen Beattle     | Thow do we increase direct standing of bloaversity as a mast have rather than mee to have:                                     | 1 -   | LIVE     | Anonymous  | inegative   | 03/13/2024      | Energy limits and the need to create light, local, biodiverse food and farm systems will drive the need for biodiversity to be         |
|                   |  |       |          |            |             |                 | properly protected. Whether we can make this happen before being forced to shift our practices remains to be the only question         |
|                   |  |       |          |            |             |                 | (spoiler: seems unlikely and transition by chaos is my pick).  |
|                   |  |       |          |            |             |                 | FINAL COMMENT  |
|                   |  |       |          |            |             |                 | None of these questions nor answers can be considered in isolation – they are all part of what needs to be addressed as part of        |
|                   |  |       |          |            |             |                 | unpicking the wicked problem that is the bit of agriculture that is unhealthy – where costs are socialised, and gains are capitalised. |
|                   |  |       |          |            |             |                 |  |
| Dr Tanira Kingi   | Tanira, is your PowerPoint presentation available to be circulated. It was hard to see the graphs from the back of the         | 2     | Live     | Anonymous  | negative    | 03/13/2024      |  |
|                   | room.  |       |          | ,,         |             | 55, 25, 252     |  |
| Dr Tanira Kingi   | Tanira- what can we learn from leading farms in the Maori sector   | 0     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
| Dr Tanira Kingi   | Nga mihi Tanira, how does our emissions profile influence our expected contributions to global emissions reductions?           | 0     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
| Dr Tanira Kingi   | What role for forestry for future resilience   | 2     | Answored | Anonymous  | neutral     | 03/13/2024      |  |
| Dr Tanira Kingi   | Are we talking with our other club members (less than 1% global emissions countries) on what they are trying?                  | 1     | Live     | Anonymous  |             | 03/13/2024      |  |
| Di Tumu Kingi     | The We taking with our other class members (less than 270 global emissions countries) on what they are trying.                 | -     | Live     | / monymous | neutrai     | 03/13/2021      |  |
| Dr Tanira Kingi   | Where do our landowners find professionals equiped to test farm systems looking at alternative land uses/alternative products? | 4     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
| Dr Tanira Kingi   | I agree that we need to understand that society needs to pay for public goods by private entities. How do we make that         | 1     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
|                   | acceptable to the public and farmers?  |       |          |            |             |                 |  |
| Dr Tanira Kingi   | Please comment on the importance of having a significant commodity Levy, e.g., Dairy industry                                  | 3     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
| Dr Tanira Kingi   | I notice a lot of rules & investment from regulator's about how we should farm & grow. What is being done to help              | 5     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
|                   | develop the future of our markets?   |       |          |            |             | / /             |  |
| Dr Tanira Kingi   | How can we step up our market channel development as mentioned by Dr Kingi and integrate better with market                    | 2     | Live     | Lewis      | neutral     | 03/13/2024      |  |
| Dr Tanira Kingi   | partners?  Dr. King. What were some of the drivers of productivity that were modeled in FarmEx that enabled reduced stock      |       | Livo     | Ananymaya  | noutral     | 03/13/2024      |  |
| Di Tallira Kiligi | numbers, refuced GHG, and increased EBIT?  | "     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
| Dr Tanira Kingi   | How can landowners ensure they receive a fair return for the risks associated with global market development and               | 0     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
| Di Tarina Kingi   | sustainable land use change?   |       | 2.170    | , monymous | i i cuti ui | 03/13/2021      |  |
| Dr Tanira Kingi   | What are your thoughts on diversifying revenue streams with agri voltaics?   | 0     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
| Dr Tanira Kingi   | Do you think there is an expiry date on importing PK? An if so, how long until we can no longer feed it?                       | 3     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
| Dr Tanira Kingi   | When will single species pine forests be excluded from the term 'Aforrestation' (as opposed to mixed species native            | 1     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
|                   | plantations)?  |       |          |            |             |                 |  |
| Alan McDermott    | Alan- if we were to rear all our 1.8 million calves do we have enough land for these animals to be reared to 1 yr old?         | 3     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
| Alan McDermott    | Alan, when is veal no longer veal?   | 2     | Answered | Anonymous  | neutral     | 03/13/2024      |  |
| Alan McDermott    | Is New Zealand's bobby product also marketed as veal?  | 2     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
| Alan McDermott    | Q for Alan: how much of a focus are you putting on growing domestic market consumption for veal? Is it potentially a           | 0     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
|                   | more affordable meat for NZers?  |       |          |            |             |                 |  |
| Alan McDermott    | Alan - do you have a calf-specific animal welfare plan? (Note - WELFARE not health!)   | 1     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
| Alan McDermott    | Hi just curious re the pearl veal. With animals being older and on pasture diet wouldn't the flesh be darker than              | 1     | Live     | Anonymous  | neutral     | 03/13/2024      |  |
|                   | traditional veal   |       |          |            |             |                 |  |
|                   |  |       |          |            |             |                 |  |

| Speaker        | Question text  | Score | Status | User Name | Sentiment | Submission Date | Answer |
|----------------|--|-------|--------|-----------|-----------|-----------------|--------|
| Alan McDermott | Hi, Why does NZ have such a higher calf cull % compared to the rest of the world?  | 0     | Live   | Anonymous | neutral   | 03/13/2024      |        |
| Dayne Rowe     | Dayna, love your presentation! If you struggle to find the time for shared meals how are you managing the time required for gardening?                           | 1     | Live   | Anonymous | positive  | 03/13/2024      |        |
| Rob Mc Gowan   | Rob/all - what's your guidance for our young entrepreneurs wanting to work recloaking our whenua?  | 0     | Live   | Anonymous | neutral   | 03/13/2024      |        |
| Rob Mc Gowan   | Rob, do u agree future Forests require species that thrive in future climates. This is unlikely to be current species.   | 1     | Live   | Graham    | neutral   | 03/13/2024      |        |
| Rob Mc Gowan   | Recloaking papatuanuku takes time & cyclones will occur before forest species have established enough protect the land. How do we protect against this risk?     | 0     | Live   | Anonymous | neutral   | 03/13/2024      |        |
| ??             | Will there be an economic advantage of biodiversity credits like the ETS to encourage native plantings over pines?   | 0     | Live   | Anonymous | neutral   | 03/13/2024      |        |
| ??             | When will the government acknowledge the significant conflict of interest fertiliser cooperatives drive with their bias 'research' & overselling nutrient inputs | 2     | Live   | Anonymous | neutral   | 03/13/2024      |        |