



Low Emissions Economy Inquiry
New Zealand Productivity Commission
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SUBMISSION TO THE NEW ZEALAND PRODUCTIVITY COMMISSION ON THE LOW EMISSIONS ECONOMY DRAFT REPORT JUNE 2018

1. Horticulture New Zealand, along with Tomatoes New Zealand Incorporated and Vegetables NZ Incorporated, welcome the opportunity to provide comments on the New Zealand Productivity Commission draft report on the Low Emissions Economy.
2. We agree that it is important to investigate how New Zealand can maximise the opportunities and minimise the risks of transitioning to a lower net-emissions economy. We believe that consistency, transparency and certainty are essential to the solution.

Horticulture New Zealand (HortNZ) represents the interests of New Zealand's 5000 commercial fruit and vegetable growers who employ over 60,000 workers. The horticulture industry is valued at over \$6 billion annually to the New Zealand economy. Horticultural exports are rapidly growing, and the industry is on target to meet Horticulture New Zealand's industry mission of \$10 billion by 2020. New Zealand horticultural produce exports in 2017 exceeded \$5.1b fob value and represent a 91% increase in the total value of New Zealand horticultural exports of a decade earlier (2007: \$2.7b). New Zealand's horticultural produce exports were \$3b in 2008 and only exceeded \$4b fob value in 2015.¹ Land under horticultural crop cultivation in New Zealand is calculated to be approximately 126,000 hectares².

Tomatoes New Zealand Incorporated (TomatoesNZ) is the national organisation representing New Zealand's 130 fresh tomato growers, almost all of whom grow in greenhouses. The fresh tomato industry has an annual farm gate value of \$131m (March 2018), including export sales of over \$10m per year.

Vegetables New Zealand Incorporated (VNZI) is the national organisation representing 750 fresh vegetable growers with a total gate sale value of over \$430m, including 128 greenhouse growers who produce domestic and export sales of over \$140m.

¹ Statistics from Fresh Facts 2017 for the year ending 30 June 2017.

² <https://www.mpi.govt.nz/dmsdocument/23056/loggedIn>

This submission provides feedback on the questions posed in the issues paper that are most pertinent to the horticulture industry. We would be happy to meet with you to discuss this feedback in more detail.

EXECUTIVE SUMMARY

3. This report furthers the commonly stated assumption that converting from agriculture to horticulture would improve the country's emission profile. As we've previously submitted, we agree that a move to horticulture would be likely to reduce emissions, although the industry is facing ongoing challenges and barriers to horticulture conversions that must be considered and resolved satisfactorily. These include:

- a. access to suitable growing land – preserving high quality soils and preventing urban encroachment is crucial to growing horticultural developments;
- b. access to irrigation - without certainty of water, capital investment commitments won't be made;
- c. feasible access to export markets for fresh produce – producing more for our domestic market simply drives prices and profitability down, which will lead to business closures and discourage new investment. Certainty of export market access across a breadth of global markets is crucial to horticulture's ongoing development;
- d. access to labour – without skilled labour, further investment commitments in horticulture won't be made;
- e. the position of the industry as a price-taker – enabling certainty of development at scale, increasing R&D for high quality production, and preserving high quality market access will be key to reducing the price taker position of much horticultural production.

A report commissioned by Ministry for Primary Industries (MPI) "*Analysis of drivers and barriers to land use change*" (Journeaux et al 2017)³ lists at least 14 drivers and/or barriers to land use change including biophysical, economic, technological, societal and personal factors.

4. We are concerned about the impact of a rapid transition to a low carbon economy for New Zealand growers. Any transition must keep pace with the average global trend to ensure NZ producers are not relatively disadvantaged. Already NZ producers compete in global markets against growers who are heavily subsidised. Adding further cost to NZ production, which competitor growers may not face, adds to the existing disadvantage for our growers. NZ growers are already recognised as leading producers with low carbon emissions⁴. Making NZ growers uncompetitive on the global stage may lead to a decline in NZ production, with other, less-efficient and greater emitting growers supplying our customers – a truly perverse outcome.

5. Horticulture has been touted as an alternative land use to more emissions-intensive animal based agriculture, producing high value returns per hectare. While certainly horticulture can add value, the significance of the diversity within the industry, and the barriers outlined above, must be acknowledged and accommodated. We are concerned that a lack of data and modelling of emissions for all of the fruit and vegetable categories within the New Zealand horticultural sector, which vary enormously: from kiwifruit and summerfruit,

³ <https://mpi.govt.nz/dmsdocument/23056/loggedIn>

⁴ https://researcharchive.lincoln.ac.nz/bitstream/handle/10182/4317/food_miles.pdf

to leafy greens, to covered cropping of tomatoes, means that the discussion on converting more land to horticulture on the basis of lowering emissions is not fully informed.

6. We once again emphasise the need for investment in data collection and modelling, research and development, and supporting the implementation of new technology.

NECESSITY OF FURTHER KNOWLEDGE TO IMPROVE POLICY DECISIONS

7. There needs to be greater certainty and knowledge about the impacts of low-emission policies for horticulture. Much of this report is focused on well understood sectors (driven by homogeneity and large-scale) – this is the exception, not the rule in horticulture. Improving our knowledge of unintended consequences, and critically debating the reality that farming of food does generate emissions is necessary to form a truly coordinated and well-grounded approach to a low-emission economy. This work needs commitment from policy makers to ensure the long-term vision is realised. It starts with recognition that horticulture isn't dairy farming – it is often a much more varied and complex system from fruit crop orchard, to outdoor vegetable cropping rotations, through to covered crop greenhouses.

SUPPORTING TRANSITION TO LOWER EMISSION TECHNOLOGIES

8. We note, including from our previous submission, some of the challenges that have yet to be adequately addressed and overcome regarding both technological and spatial solutions, and the costs of transition.

9. For example, covered crop tomato, capsicum, lettuce and cucumber producers in the South Island (close to South Island urban centres for consumption) are reliant on coal as opposed to North Island counterparts with access to natural gas. The capital cost of conversion to alternative fuels such as wood chip is high, particularly for small and medium sized operations. In most cases there is no commercially viable alternative, especially given limited availability of quality biomass in NZ. Growers report that they are not confident of securing a consistent supply, and that the considerable volume increase that would be required for wood chip compared to coal would be difficult to manage and negate some of the benefits of conversion (i.e. more road transport is required). The NZ ETS cost is small compared to the large capital investment required to convert to a new system and in many cases there are no viable alternatives.

10. For indoor growers of fresh produce, energy is the second highest single input cost, following closely behind wages. Currently the average energy use by vegetable covered crop growers in the North Island is 26% less than in the South Island, due to climatic differences. The main barriers to change remain the practicality of alternative fuels and lack of new energy efficiency technologies. To enable consideration of lower carbon fuel options, support at a regional level is required to ensure factors such as stability of price, availability, and consistent quality of alternative fuels is taken into account.

11. We agree with the statement in the “at a glance summary” under the heading “harnessing the full potential of innovation and investment” that “Substantially more, and better targeted, funding for innovation and technology adoption that supports the low-emissions transition is critical.”

TRANSPORT

12. The alternative fuels summary (Chapter 11) provided proposed rebates for transition to electric vehicles. Given this technology is now both readily available and rapidly decreasing in price, this seems like a very easy win – but the issues of low emission economy are not those that are already solved. What at a policy level would be best intent to enable substantive, rapid, and effective transition in areas where the technology is either less available and/or substantively more expensive than the current higher emission technologies? In our view selecting easy targets for transition is not the substantive issue for New Zealand, and to do so paints a simplistic picture.
13. As in other countries, the transition away from fossil-fuel vehicles is feasible and occurring in public transport and light private transport. There currently are no feasible options for growers to convert heavy on-farm machinery to non-fossil fuel vehicles. Regulation on emissions intensity of vehicles in other countries has seen the forced obsolescence of older vehicles, which improves emissions intensity, but negatively impacts the life cycle assessment of vehicles and total emissions. A ‘feebate’ scheme may incentivise lower emissions for new vehicles, however excessively high ‘feebates’ may have the same effect of forced obsolescence.

NZ ETS

14. Page 237 of the report states that “Agriculture (including horticulture and cropping) should be fully covered by the NZ ETS”. Horticulture businesses are already part of the ETS in respect of energy usage (transport, heating, cooling).
15. Further capturing horticulture in the NZ ETS would increase the costs and administrative burden at a farm level even though the industry has a low footprint at farm/orchard level and negligible contribution at national level. Increasing the burden on horticulture businesses is likely to deter the land use change that the NZ ETS is expected to drive. Creating an emissions intensity threshold which triggers inclusion in the NZ ETS may reduce this burden.
16. Covered crop growers are currently captured in the NZ ETS via ETS units charged by energy providers (coal and gas) for greenhouse heating fuels (and also units paid on transport fuel). Covered crops growers do have access to rebates via the Emissions Intensive Trade Exposed (EITE) scheme, which recognises the significant impact that the ETS has on business costs and the competitiveness of these growers. Rebates are based on yields, and set at a rate that applies throughout New Zealand. This means that in the South Island, where coal is used at a higher ETS cost than gas in the North Island, South Island growers are disadvantaged relative to North Island growers. The ETS of South Island growers are not fully recovered by the EITE rebates they receive. An increase in carbon price to the potential \$200/tC will put South-Island covered crop growers out of business. The produce they grow will instead be trucked from the North Island, and there is likely to be an increase in imports to fill the gap in production. Neither of these outcomes are likely to improve global emissions, and will also result in poorer quality product for consumers.
17. Therefore, we welcome the recommendation to preserve allocations for Emissions Intensive Trade Exposed industries and sustain the domestic food supply, at a minimum. Currently 94% of NZ grown vegetables are consumed domestically. In theory, the current

allocation system based on yield instead of energy use should have given a price signal for incentivising fuel source changes, however this has not occurred due to the constraints above including lack of suitable alternatives and the capital costs of conversion.

18. While growers are price takers in general, an increase in the carbon price is likely to lead to an increase in the cost of fruit and vegetables over time via increased costs for greenhouse heating, cool storage and distribution.

POINT OF OBLIGATION

19. While making farms and orchards the point of obligation may incentivise change and drive reductions, the administrative burden and lack of viable mitigations or ability to measure emissions accurately mean that this simply increases costs. Small growers have had difficulty trading their small amounts of units and found the system complicated and confusing.
20. When considering N₂O, there are no viable mitigations currently available for horticulture to reduce emissions. Studies show that a reduction in nitrogen inputs result in a directly proportional loss in yield. In the absence of scientifically proven mitigations, the point of obligation at farm level for N₂O emissions from horticulture will simply add costs to growers.
21. At processor level (e.g. energy provider/fertiliser manufacturer), growers have experienced carbon prices in exceedance of the real NZ ETS carbon price unfairly disadvantaging growers. This scenario is likely if carbon costs are passed on to growers by processors.

OVERSEER

22. We are very concerned about the comments made on OVERSEER, as they relate directly to animal sectors but have no bearing on the reality of complex horticultural systems....
“A big advantage of using OVERSEER for emissions pricing is that most dairy farmers are already familiar with the model, as they use it for monitoring their nutrient losses. Views were mixed however among submitters about whether OVERSEER is currently a suitable tool for regulating emissions.” (page 260, Chapter 10)
23. We recommend against the use of OVERSEER for regulatory purposes (rather than simply as an advisory tool), as it does not provide sufficient detail, accuracy nor confidence for the horticultural sector to be considered for such purpose.

SUMMARY

We welcome the draft paper and commend the Commission for your work in this critical area essential to shaping New Zealand's future.

Yours sincerely



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