

To: Committee Secretariat
Environment Select Committee
Parliament Buildings
Wellington 6160

From: Horticulture New Zealand Limited,

Supported by: Potatoes NZ, Tomatoes NZ, Asparagus NZ, Strawberries NZ, Onions NZ, Vegetables NZ, Process Vegetables NZ, Central Otago Fruit Growers Association, New Zealand Kiwifruit Growers Association, Zespri, Katikati Fruit Growers Association, New Zealand Boysenberry Council, New Zealand Apples and Pears, New Zealand Avocadoos

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Subject: Submission on the Climate Change Response (Zero Carbon) Amendment Bill

1 Overview of Horticulture New Zealand

Horticulture New Zealand (HortNZ) is an industry association advocating for and representing the interests 5000 commercial fruit and vegetable growers in New Zealand.

Horticulture is New Zealand's fourth largest export industry, with an estimated industry value of \$6.1 billion as of June 2019¹. The industry has a reputation for innovation, quality, early adoption of new technology and responsiveness to market demand.

Horticultural production uses over 120,000 hectares, which is less than 1% of the country's total land area. More than 60,000 people are employed in New Zealand's horticulture industry. The Ministry for Primary Industries (MPI) are forecasting horticulture revenue to rise by 13.7% by the end of June 2019 (compared to dairy, seafood and forestry at 5.7%, 7.3% and 7.8%, respectively).¹

¹ MPI (2019). Situation and Outlook for Primary Industries, June 2019. ISBN No. 978-1-98-859467-5. <https://www.mpi.govt.nz/dmsdocument/34938-situation-and-outlook-for-primary-industries-sopi-june-2019>

2 Introduction to the submission

The horticulture sector is committed to responding to the challenges posed by climate change and contributing to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels, whilst maintaining food production.

We are committed to working with the Government, Iwi and all sector participants to define and progress the changes necessary to achieve permanent emissions reductions benefiting the environment, social, cultural and economic sustainability of New Zealand's rural and urban communities.

The horticulture sector will adapt to climate change, while enhancing our reputation for safe and sustainable fruit and vegetable production and maintaining our competitiveness in international markets. We remain committed to producing healthy fruit and vegetables at a reasonable price for our domestic market.

3 Key comments

Our summary comments are as follows:

- We support the purpose, and seek an additional purpose.
- We support the recognition of the Treaty of Waitangi.
- We support the establishment of an independent Climate Change Commission.
- We support setting targets for 2050 to achieve the purpose, that are subject to review and implemented through emissions budgets, with progress subject to monitoring against emissions budgets.
- We support a risk-based approach to adaptation planning.

Further comments are provided in the following sections and suggested amendments in section 5.

3.1 Purpose of the Bill

We support the amended Purpose of the Bill which states:

“provide a framework by which New Zealand can develop and implement clear and stable climate change policies that contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels...”

However, we are of the view an additional purpose should be added to reflect the wording of article 2 (1)b of the Paris agreement, which states:

“Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production;”

3.1.1 Fruit and vegetables for domestic markets

The Paris Agreement recognises:

“the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change.”

In New Zealand in 2015/16, almost one in five children (19%) lived in households with severe-to moderate food insecurity. Of Māori children, over one in four (29%) lived in food-insecure households².

There is an extensive body of research³ indicating that children experiencing household food insecurity have lower fruit and vegetable intake, diets higher in fat, and are at an increased risk of obesity.

In New Zealand, over 80% of vegetables are grown for domestic supply⁴. The greenhouse gas emissions associated with vegetable production are low compared to other foods.⁵

3.1.2 Fruit and vegetables for export markets

Fruit is primarily produced for export markets. New Zealand’s fruit is a premium product and contributes to overall global food security.

Vegetables are exported globally. New Zealand’s export vegetables contribute to overall global food security, and are particularly important for the food security of Pacific Island nations, where a large proportion of New Zealand export vegetables are consumed.⁶

The greenhouse gas emissions related to fruit and vegetables production are low compared to other foods⁷.

3.1.3 Metrics for greenhouse gas efficiency of food.

The Eat- Lancet Commission found, food is the single strongest lever to optimize human health and environmental sustainability and without action, the world risks failing to meet the United Nations Sustainable Development Goals and the Paris Agreement. The report

² <https://www.health.govt.nz/system/files/documents/publications/household-food-insecurity-among-children-new-zealand-health-survey-jun19.pdf>

³ <https://www.health.govt.nz/system/files/documents/publications/household-food-insecurity-among-children-new-zealand-health-survey-jun19.pdf>

⁴ <https://www.freshfacts.co.nz/files/freshfacts-2018.pdf>

⁵⁵ <https://josephpoore.com/Science%20360%206392%20987%20-%20Accepted%20Manuscript.pdf>

⁶ <http://www.hortnz.co.nz/assets/Media-Release-Photos/HortNZ-Report-Final-A4-Single-Pages.pdf>

⁷ <https://josephpoore.com/Science%20360%206392%20987%20-%20Accepted%20Manuscript.pdf>

recommended a transformation to healthy diets by 2050 requiring substantial dietary shifts, with global consumption of fruits, vegetables, nuts and legumes having to double, and consumption of foods such as red meat and sugar being reduced by more than 50%⁸.

The contribution New Zealand makes to global food security, like our contribution to emissions, is relatively small. However, improving the global food system so it contributes more to the health of people, and less to climate change, requires global action.

We believe the Bill provides an opportunity for a national commitment to increase the overall greenhouse gas efficiency of New Zealand's food production, without reducing production.

This could be achieved both by:

- reducing the carbon footprint of each food product, this metric could include on-farm carbon off-setting, but would not include off-farm offsetting, and
- by increasing the proportion of food, that has a lower carbon footprint relative to other food products New Zealand produces.

It would be possible, to achieve the greenhouse gas emission reduction target, by reducing the food New Zealand produces. In our view, the combination of climate and food targets, will direct New Zealand to making a more meaningful contribution to climate action, and is more likely achieve the aim of the Paris Agreement.

3.2 Allocation of New Zealand units in relation to industry and agriculture

The Climate Change Response (Zero Carbon) Amendment Bill, does not address the allocation system within the Climate Change Response Act 2002. However, we are of the view that clear principles should be developed for the industrial and agricultural allocation of units. The allocation should be designed to account for global emissions and food security, and have particular regard to domestic food security, and in particular the supply of healthy fruit and vegetables at a reasonable price.

4 Implementation

Horticulture New Zealand has participated in a number of primary sector forums including BERG and AgCharg, and has more recently been working alongside primary sector organisations to agree a joint primary sector commitment for the implementation of climate change policy.

⁸ <https://eatforum.org/eat-lancet-commission/eat-lancet-commission-summary-report/>

Underpinning the joint primary sector commitment is a 5-year climate change implementation plan. Horticulture New Zealand will work with the horticulture, arable and wine sectors to develop a coordinated implementation plan.

We have identified these principles that guide our position on managing greenhouse gas emissions:

- Reduced emissions, both from New Zealand and globally.
- Science based measurement, mitigations and impacts
- Transparent accounting and reporting
- Investment in research and development, to reduce emissions and maintain productivity.

4.1 Investment

The horticulture sector is committed to investing in a range of activities to transition the sector to carbon neutrality.

We seek investment from government in the innovation and technology that will be required to achieve:

- reductions in emissions from the horticulture sector, and
- to enable expansion of horticulture where it provides a viable, low emissions alternative land use.

In our view there could be ETS rebates and contestable funding, with criteria to achieve:

- emission reductions in New Zealand, and
- improving the overall greenhouse gas efficiency of food produced in New Zealand, while maintaining domestic food security, in particular the supply of healthy fruit and vegetables at a reasonable price.

Glasshouse growing, provides an example of how the ETS rebates and contestable funding could be designed to be more effective. With a changing climate, glasshouse growing may become more important. Glasshouses provide a resilient growing system for some crops.

Glasshouse growers are already in the ETS and recognise the need to reduce emissions. The design of the industrial allocation is output based and incentivises low carbon production. However, crops are grown close to markets throughout NZ, including some places where low carbon fuels are not readily available.

The experience of glasshouse growers, is of paying into the ETS, without seeing reinvestment that would enable a transition to lower emissions alternative fuels. For example, one grower spends \$500,000 per annum on the ETS units, of which 25% is returned by way of industrial allocation per annum. The ETS cost makes it more difficult for them to fund the investment required to transition to lower emissions alternative fuels.

Proven technology has recently become available from the northern hemisphere to install biomass burners that can heat glasshouses, but these systems would cost \$8-10m, which is cost prohibitive.

The other big impediment to conversion, is a lack of infrastructure around fuel (biomass) supply. Forestry slash, of which there is an over-abundance, is a suitable base fuel source, but it not available. A collaborative approach is needed with horticulture, forestry and energy sectors to overcome this issue.

This grower recognises the need to save energy and has retrofitted 6 ha of energy screens at a cost of \$1m. Funding available from EECA is focused on new technology missing the easy wins, of enabling businesses to reduce energy output requirements. such as retrofitting screen installation.

4.2 Emissions from fertiliser and point of obligation

The horticulture sector is committed to implementing independently audited farm environment plans. These include good management practices for fertiliser use to reduce nitrate emissions to water and nitrous oxide emissions to air. We are of the view, that the implementation of good management practices will be the most effective method of achieving reduced nitrous oxide emissions from fertiliser use.

If a price is put on nitrous oxide emissions, the cost could be added to the price of fertiliser or calculated and paid by the grower. In our view a farm level point of obligation is likely to have higher administrative costs for growers.

If in future it becomes possible for growers to offset emissions with sequestration achieved on their farm, then a farm level point of obligation may become desirable for some growers.

5 Bill clauses and comments

The following section details a number of clauses within the Bill, and considers some modifications to the wording which would provide for greater recognition of New Zealand's Primary Industries role in food production, and the Paris Agreement food production statement.

Table 1. Recommended changes to clauses within the Zero Carbon Bill

Clause No.	Description in the Zero Carbon Bill	HortNZ recommendations/changes
<p>Section 3 amended (Purpose).</p> <p>Before section 3(1)(a), insert:</p>	<p>(aa) Provide a framework by which New Zealand can develop and implement clear and stable climate change policies that contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels.</p>	<p>HortNZ seek the addition of an additional purpose for the Bill.</p> <p>Clause 3.1 (ab) would read:</p> <p>(aa) Provide a framework by which New Zealand can develop and implement clear and stable food policies that contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels without threatening food production.</p>
<p>Section 5B (a) Purposes of Commission</p>	<p>to provide independent, expert advice to the Government on mitigating the effects of climate change (including through reducing emissions of greenhouse gases) and adapting to the effects of climate change;</p>	<p>HortNZ seek the addition of an additional purpose for the Climate Change Commission to recognise the importance of meeting climate change targets whilst also ensuring ongoing food production.</p> <p>Clause 5B (a) would read:</p> <p>to provide independent, expert advice to the Government on mitigating the effects of climate change (including through reducing emissions of greenhouse gases) and adapting to the effects of climate change, in a manner that supports</p>

		greenhouse gas efficient food production.
Section 5J Commission's functions	Functions of the commission (a to i)	HortNZ would like an additional function of the commission added: 5J (j) to monitor and report on the effectiveness of policies and regulations to improve the greenhouse gas efficiency of New Zealand food production
Section 5Z Matters relevant to advising on, and setting, emissions budgets	2 (b) The Commission and the Minister must ... have regard to the following matters. (vi) the impact of the actions taken to achieve the 2050 target:	Seek the modification of clause 5Z 2b(vi) to read: the impact of the actions taken to achieve the 2050 target in a manner that supports greenhouse gas efficient food production.
Section 5ZD Requirement for emissions reduction plan	3 The plan must include: (b) a multi-sector strategy to meet emissions budgets and improve the ability of those sectors to adapt to the effects of climate change; and	Seek the modification of clause 5ZD 3 (b) to read: a multi-sector strategy to meet emissions budgets and improve the ability of those sectors to adapt to the effects of climate change in a manner that supports greenhouse gas efficient food production.
Section 5ZQ National adaptation plan	2 A national adaptation plan must set out— (a) the Government's objectives for adapting to the effects of climate change; and	Seek the modification of clause 5ZQ 2(a) to read: the Government's objectives for adapting to the effects of climate

		change in a manner that supports greenhouse gas efficient food production.
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