

SUBMISSION

Waste Strategy and Legislation

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To: Ministry for Environment

Name of Submitter: Horticulture New Zealand

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Our submission

Horticulture New Zealand (HortNZ) thanks the Ministry for Environment for the opportunity to submit on the Waste Management Strategy and Legislation.

The details of HortNZ's submission and decisions we are seeking are set out in our submission below.

HortNZ's Role

Background to HortNZ

HortNZ represents the interests of 6000 commercial fruit and vegetable growers in New Zealand, who grow around 100 different crop types and employ over 60,000 workers.

There are approximately 120,000 hectares of horticultural land in New Zealand - approximately 80,000 ha of this is fruit and vegetables. The remaining 40,000 ha is primarily wine grapes and hops, which HortNZ does not represent.

It is not just the economic benefits associated with horticultural production that are important. The rural economy supports rural communities, and rural production defines much of the rural landscape. Food production values provide a platform for the long term sustainability of communities, through the provision of food security.

HortNZ's purpose is to create an enduring environment where growers prosper. This is done through enabling, promoting and advocating for growers in New Zealand.



HortNZ's Resource Management Act 1991 Involvement

On behalf of its grower members, HortNZ takes a detailed involvement in resource management planning processes around New Zealand. HortNZ works to raise growers' awareness of the Resource Management Act 1991 (RMA) to ensure effective grower involvement under the Act.

Executive Summary

Waste management is a critical element to the sustainable production of fruit and vegetables for domestic supply and export.

The horticulture sector relies on inputs for plant nutrition and pest management, crop protection, and packaging for food safety and convenience. The production of food is a source of food loss and waste.

There is an opportunity to improve natural resource use efficiency across the sector, including across the whole waste management hierarchy.

Vision and Principles

We support the recognition that humans are part of the natural environment and our wellbeing and the wellbeing of the wider environment are inseparable.

Organic Waste

We support clear definitions of food loss and food waste and the development of a national food waste reduction target.

It is of critical importance that human health, food security and the resilience of the NZ food system is at the heart of all discussions about food waste.

Duty of Care

We support the emphasis on the duty of care concept within the strategy.

In our view, Industry Assurance Programmes, such as GAP, have an important role to play. These systems rely on agreed standards, assurance and accreditation. These systems reduce the need for data collection, but through the standard approval process, enable predictions about the progress that can be made towards targets.

Submission

1. Part 1: Why we need to transform our approach to waste

Waste management is a critical element to the sustainable production of fruit and vegetables for domestic supply and export. The horticulture sector relies on inputs for plant nutrition and pest management, crop protection, and packaging for food safety and convenience. The production of food is a source of food loss and waste.

There is an opportunity to improve natural resource use efficiency across the sector, including across the whole waste management hierarchy.

This submission focuses on the horticulture sector's key issues and opportunities and how the waste strategy can set out a vision and principles that will drive regulatory and non-regulatory systems to achieve a low emissions, circular economy in New Zealand.

Our submission highlights two key themes that we consider need greater recognition within the strategy: food security and climate change mitigation/adaptation.

1.1. Food Security

Food security is a nationally important issue that needs to be addressed at a policy level; it is integral to human health. While New Zealand is a net food exporter, New Zealand does experience food insecurity - many New Zealanders live in food insecurity. A 2019 Ministry of Health study analysed household food insecurity among children in New Zealand estimated that 174,000 (19%) of all children in New Zealand live in food-insecure households.¹

A recent study² has explored whether New Zealand, a food-producing, geographically isolated nation produces enough vegetables to support its dietary guideline. This study found inadequate legumes and dark-green leafy vegetable production. The study concluded an environmentally sustainable and diverse supply of vegetables for domestic use needs to be strategically and actively protected.

New Zealand's existing food production systems are coming under increased pressure from population growth (and competing land-use demands reducing the availability of highly productive land), climate change, water concerns, ETS costs and the cost of energy, the need to reduce and manage waste streams and the need to improve

Health costs of increase in vegetable prices

Otago University has recently modelled the potential health impacts of increased vegetable prices. This study found that using the health costs of an increase in vegetable prices of 43 - 58 percent, (Deloitte, 2018) would be a loss of 58,300 - 72,800 Quality Adjusted Life Years and health costs of \$490 - \$610 million across the population.¹

¹ Ministry of Health. (2019). Household food insecurity among children, New Zealand Health Survey

² Curran c, Rush E 2021 feeding the NZ family of 5 million 5+ a day?" <https://www.mdpi.com/2673-4834/2/4/47/htm>

environmental outcomes. There are societal and health costs to increase the prices of vegetables in New Zealand and a decline in availability.

HortNZ seeks that the waste strategy is cognisant of food security – and the need for some redundancy in the food system to ensure a reliable and resilient supply of fresh, healthy and reasonably priced food, and the role that food packaging can play in increasing the shelf life and food safety.

1.2. Climate change adaption and mitigation

Diversification to horticulture presents an opportunity to reduce emissions while increasing food production. In New Zealand, there is 1,000,000 ha of land that could potentially be converted to horticulture. If this land was converted to horticulture it would be as effective at reducing New Zealand's agricultural emissions as a methane vaccine.³

The waste strategy's focus needs to take a holistic view in the management of methane, considering methane from waste and methane from animals together to ensure the cost and benefits of reducing methane from all sources are considered.

2. Part 2: A proposed new waste strategy for Aotearoa New Zealand

2.1. Vision

We support the circular economy vision.

We support the concept that humans are part of the natural world and our wellbeing and the wellbeing of the wider environment are inseparable. Our relationship with the environment is one of reciprocity.

We consider the Vision is broadly compatible with that proposed within the Natural and Built Environments Bill (NBA). Still, we consider there is benefit in crafting a clearer link across the waste legislation and the legislation that governs the natural resources at the heart of waste streams.

2.2. Principles

We broadly agree with the principles. We are particularly concerned with issues relating to food security and climate change mitigation and adaptation.

When considering Principle 6, and the delivery of inclusive and equitable outcomes, we consider the Te Oranga o Te Taiao's concept within the draft NBA is relevant. Te Oranga o Te Taiao's speaks to the health of the natural environment and recognises that humans are part of the natural environment. We consider Principle 6 should include explicit consideration of the need to seek to maintain human health in waste policy decision making.

³ BERG. (2018). The report of the biological emissions reference group.
<https://www.mpi.govt.nz/dmsdocument/32125/direct>

2.4. Data Analysis and Target Setting

We recognise it is important that data and analysis support decision making and investment priorities. To ensure that actions prioritise those activities that have the greatest potential to achieve targets.

We are concerned about the ad hoc collection of data. We consider there is a need for scrutiny around increased data collection to ensure that data is collected is used appropriately, privacy or commercial interests are appropriately protected, and the information collected is stored and used appropriately.

In our view, Industry Assurance Programmes such as GAP, have an important role to play. These systems rely on agreed standards, assurance and accreditation. These systems reduce the need for data collection, but through the standard approval process, enable predictions about the progress that can be made towards targets. GAP is discussed in section 6.4 of this submission.

2.4.1. PRIORITY 5: REDUCE EMISSIONS FROM ORGANIC WASTE

It is critical that human health, food security and the resilience of the NZ food system is at the heart of all discussions about food waste.

We recommend work is undertaken to define food loss and food waste, and that these definitions are used to inform targets within the strategy. We also recommend a National Food Loss and Waste Baseline is established, as was completed in Australia in 2019⁴, to quantify food loss and waste in New Zealand at the country scale and across the full food supply and consumption chain, from primary production through to consumption and disposal or recovery.

Once definitions, targets and a baseline have been established, we recommend further assessment is undertaken to identify hotspots for waste and environmental impacts; including testing and costing scenarios to highlight where action such as industry led initiatives can provide a cost-effective approach to reducing food waste within a supportive policy framework.

Targets to reduce food loss within fresh vegetable production need to account for the redundancy required within the domestic food system. When weather events or other disruptions occur in the system, such as the COVID pandemic, some redundancy in the domestic food system enables alternative growing areas to harvest more to meet domestic demand.

Consumer behaviour and willingness to buy imperfect crops would enable growers to sell a larger proportion of the crops grown.

2.4.2. TARGETS FOR FOOD LOSS SHOULD APPLY ACROSS ALL PRIMARY PRODUCTION IN NEW ZEALAND. FOOD WASTE

We support the objective to reduce food waste, but care needs to be taken to develop this policy that improves the health of New Zealanders, and maintains the economic viability of growers who produce the healthy food we rely on.

2.4.2.1. Domestic food waste

⁴ <https://www.stopfoodwaste.com.au/wp-content/uploads/2021/02/PDF-1-national-food-waste-baseline-final-assessment.pdf>

In NZ, 80% per cent of vegetables are grown for the domestic food supply. We are conscious that vegetables and fruit are a source of consumer food waste. However, we also note that many New Zealanders do not consume recommended five plus a day. In NZ in 2018/19, only 32% of people met the daily recommended consumption of fruit and vegetables. To achieve health outcomes for New Zealanders, we should be encouraging all New Zealanders to eat more fruit and vegetables every day.

Fresh fruit and vegetables have a shorter shelf life than highly processed food. Unprocessed fresh fruit and vegetables include cores, skins, outer leaves and stalks. These parts of these plants are unpalatable to many consumers.

We support behaviour change to encourage people to plan their purchases and eat products before they go off, but we are concerned that an over-emphasis on significantly reducing waste from fruit and vegetables could drive perverse health outcomes. We need to make sure our approach does not make eating healthy food seem overly complex and inaccessible to New Zealanders.

In our view the focus should be on diverting food waste at the packhouse level to alternative commercial streams, such as processed products or waste to energy.

2.4.2.2. Edible food rescue

Any policies to reduce the loss and waste of fruit and vegetables should be mindful of the economic system that underpins the sustainable production of these foods. Horticultural crops are not free to produce, harvest or distribute, and while growers, retailers and restaurants proudly participate in voluntary schemes to donate food, targets that seek to reduce food loss and waste through food rescue need to consider the economic sustainability of these programmes.

In our opinion, all people should have access to safe and healthy food, however we do not support the redistribution of food that does not meet food safety standards.

2.4.2.3. Diversion to animal feed

Crops that are unsuitable for distribution for human consumption are often used for animal consumption. This should, where possible, be encouraged.

2.4.3. PLANT PROTECTION AND NUTRITION

Inputs such as agrichemicals and fertilisers enable growers to better predict the yield of crops and better match production and demand and therefore these inputs have an important role in minimising food loss and food waste.

We support programmes to reduce adverse environmental effects from using these products, such as Growsafe, and the GAP schemes. We also support product stewardship programmes such as AgRecovery to manage waste associated with these products.

We support the investment in alternative circular products like the EcoGas example discussed in the consultation document. The Ecogas facility converts food and organic waste into organic fertilisers and biogas. Commercial composting can occur efficiently at the scale of packhouses and processors. We also support curb-side collection and the commercial composting of domestic organic waste.

Compost is already used widely in the horticulture sector as a source of plant nutrition. It could make up a greater proportion of the fertiliser products used by the sector in the future. In addition to investment in technology to produce compost, we also see a need for greater investment in the quality control for composting products, so growers can better match crop demand and nutrient supply from organic composts. Currently, some research is underway on this topic in the horticulture sector, but a greater understanding is required to manage the water quality impacts of compost use.

Not all plant residues produced on orchards or vegetable farms are collected and composted. Plant residues (the part of the plant that isn't harvested for consumption) are cultivated back into the soil or returned to the soil as mulch. Plant residues returned to soils are not wasted or lost. They are part of a regenerative growing system where unharvested plants return nutrients and carbon to the soil. Care needs to be taken in the development of definitions and adoption of targets for food loss, that these definitions do not drive poorer outcomes for soil health.

We support research to better account for plant residue in the application of additional organic and synthetic fertilisers. Currently research is underway on this topic in the horticulture sector, but a greater understanding is required to manage the water quality impacts of plant residue management..

2.4.4. METHANE

The strategy highlights three actions to reduce methane from waste.

- reduce waste
- divert organic waste from landfill to recycling and composting
- improve and extend landfill gas capture systems.

We support these actions. However, care should be taken in efforts and campaigns focused on reducing domestic food waste to ensure that New Zealanders are not inadvertently discouraged from eating "5 plus" a day.

We think there are opportunities for food waste to be developed into biogas, from food waste from within the supply chain.

3. Legislation on waste: issues and options

We consider there should be a stronger link between the Vision and Principles in the Waste Strategy and those in the exposure draft NBA, which has the overarching purpose of Te Oranga Te Taiao, where the health of the natural environment is the overarching purpose, and that people are included within the definition. Therefore, the health of people is recognised and interconnected to the health of the wider environment.

We consider there is likely to be a need to increase the degree to which the waste stream is integrated with local government funding and planning to ensure the investment infrastructure required to implement the system occurs.

5. Putting responsibility at the heart of the new system

We support the emphasis on the duty of care concept within the strategy and including in managing hazardous substances.

5.1. Hazardous substances in the context of horticulture

Hazardous substances, such as agrichemicals, fertilisers and fuel, are used as part of the everyday business by horticultural growers. The substances and quantity will vary according to season, the crop grown and rotation. Generally, growers do not purchase large quantities in storage on-site (but the amount varies based on the season, crop, rotation, etc.).

- Growers are subject to regulation and compliance under Hazardous Substances and New Organisms Act (HSNO).
- NZGAP also assesses compliance with regulations such as HSNO and includes GROWSAFE as a requirement.
- NZS8409:2004⁵ - is an approved Code of Practice under HSNO and sets out best practices for using and storing agrichemicals that meet HSNO requirements.

5.1.1. GROWSAFE

GROWSAFE is an example of users of agrichemicals taking responsibility for the safe use and storage of agrichemicals.

A GROWSAFE certificate is credible evidence to customers and the authorities that growers meet their obligations and understand and use agriculture responsibly and professionally.

5.1.2. RMA MANAGEMENT CONTEXT

The HSNO Act is the primary legislation designed to manage hazardous substances across their life cycle. Amendments to the RMA in 2017 removed the control of hazardous substances as an explicit function of councils.

The Christchurch Replacement District Plan decision considered the relationship between the RMA and HSNO and considered that additional provisions should only be adopted where necessary. The decision also referred to Quality Planning guidance which states:

Inclusion of hazardous substance controls in plans should be the exception rather than the rule and included only when a rigorous section 32 analysis shows that these controls are justified.

HortNZ seeks a framework that does not duplicate the controls in HSNO or provide a blanket approach. There should only be provisions within RMA frameworks managing hazardous substances where there are demonstrable gaps in what HSNO/HSW can control.

HortNZ considers there could be merit in exploring better regulation of hazardous waste could be pursued through reform of the RMA, HSNO Act or Imports and Exports

⁵ Recently reviewed and update - NZS8409:2021.

(Restrictions) Act 1988 or through new waste legislation – or some combination of these measures. We would seek a streamlined process with less risk of duplication.

6. Product Stewardship

We support duty-of-care obligations covering the supply chain for waste management alongside other regulatory measures to control how waste is managed.

The Agrecovery scheme is gaining traction and acceptance in the agricultural marketplace. Growers/farmers are committed to sustainable (circular use) product options on their farms.

7. Enhancing regulatory tools to encourage change

Considering the shift to a regenerative and circular economy for NZ, requires a truly global mindset and a consideration of the essential needs of the NZ population. We import and export products that generate waste.

7.1. Data collection powers

We support an evidence-based approach to policymaking. For the strategy to be effective and credible, it needs to focus on the activities where a significant proportion of waste can be reduced with the least impact on community wellbeing.

As discussed later in section 6.4 of this submission, we support the use of an accredited industry assurance programme that can provide assurance about progress towards targets without the need for onerous data collection.

7.2. Use of materials on orchard/farm

There could be potential for research into alternative, or longer-lived materials in regard to non-organic waste – e.g. black ground cover plastics, plastic growing pots, shade and shelter cloth, all of which have a short lifespan and are generally non-recyclable.

7.3. Food Packaging

We support policies to reduce and optimise food packaging, reduce packaging, and increase the proportion of reusable, made from recycled products and recyclable materials. Many horticultural companies have targets to reduce packaging and increase the proportion of recycled material in products and the proportion of recycled products.

We support investment in the infrastructure and technology in NZ that will support the ability of producers to increase the ability to pack to be recycled and composted.

When setting policy and targets for packaging, it is important to consider the positive role of food packaging and to design alternatives that can also achieve these benefits:

- Increased shelf life, reducing food waste
- Reduced food safety risks associated with handling
- Branding of products creates market incentives for sustainability

And to take care that targets do not drive perverse outcomes.

7.3.1.1. Country of Origin Labelling

Horticultural products often have minimal packaging and are frequently sold loose. However, consumers are interested in where their food was produced and interested in the sustainability credentials of food. As discussed in section 6.4 of this submission, systems such as GAP provide assurance that processes are in place to ensure food safety, social practice and environmental sustainability. Country of origin labelling of certain foods will be required from 12 February 2022.

Food labelling plays a critical role in enabling consumers to select produce from trusted New Zealand brands, ensures exporters can trace fruits in offshore markets and aides in combating issues with counterfeit fruit suppliers. Care needs to be taken when banning products that sufficient time and investment in lower waste alternatives is provided to ensure relatively low waste options such as food stickers are not replaced with higher-waste and energy alternatives, or that the ability of consumers to drive sustainable behaviour through brands is not undermined.

7.4. Import and export controls

Any changes to import and export controls will need to be carefully developed to ensure they're used only for legitimate environmental protection objectives under Aotearoa New Zealand's obligations under the World Trade Organization rules and our free trade agreements.

7.5. Industry Assurance Programme - GAP

Consumers are seeking assurance about the sustainability of products. Many horticulture producers are considering the whole life cycle of production, including environmental footprints, and how they can minimise impacts across the whole supply chain.

The GAP scheme is focused on the 'on-farm' part of the system. In our view, Industry schemes such as GAP can be used to enable growers to demonstrate the credentials of their products and to drive uptake of improvements across the sector.

The advantage of using an Industry Assurance Programme such as GAP is that assurance about progress towards targets can be worked towards collecting a large amount of data at the producer scale.

We seek that regulation supports and aligns to the industry assurance programme and that care is taken to ensure regulations do not conflict and complicate market led systems, which in our view can drive improvements in sustainability in an efficient manner.

Appendix 1 - Submission on Waste Strategy and Legislation

Without limiting the generality of the above, HortNZ seeks the following decisions on the strategy as set out below or alternative amendments to address the substance of the concerns raised in this submission and any consequential amendments required to address the concerns raised in this submission.

Additions are indicated by bolded underline and deletions by strikethrough text.

Provision	Support/ oppose	Reason	Decision sought
<p>Principle 6</p> <p>Deliver equitable and inclusive outcomes Kia taurite, kia tapatahi ngā hua</p> <ul style="list-style-type: none"> • Make changes in a way that recognises the unique perspectives and approaches facing different local communities, business, hapū/iwi and whānau. • Consider carefully who bears the cost of change in the short and long term and address inequity. • Develop and invest in a way that creates opportunities and jobs at all levels for local and regional communities to build resilience. • Identify and remedy problems now, so the cost of our inaction doesn't harm future generations 	Support In part.	<p>The Vision recognises that people and the environment are inseparably connected.,</p> <p>We agree and consider that the health of people and the health of the environment are inseparably linked, and the health of people must be accounted for when setting environmental limits for waste.</p>	<p>Principle 6</p> <p>Deliver equitable and inclusive outcomes Kia taurite, kia tapatahi ngā hua</p> <ul style="list-style-type: none"> • Make changes in a way that recognises the unique perspectives and approaches facing different local communities, business, hapū/iwi and whānau. • <u>Contribute to improving human health and food security</u> • Consider carefully who bears the cost of change in the short and long term and address inequity. • Develop and invest in a way that creates opportunities and jobs at all levels for local and regional communities to build resilience. • Identify and remedy problems now so future generations aren't harmed by the cost of our inaction.

