



# wasteMINZ

## **Organic Materials Steering Committee Submission: Consultation on moving away from hard to recycle plastics and single use plastic items**

This submission has been written to document WasteMINZ's Organic Materials Sector Group (OMSG) response to the Ministry of Environment (MfE) public consultation on "Proposed ban on single use plastic items and pvc and polystyrene food and beverage packaging"

Formed in 1989, WasteMINZ is a membership-based organisation with over 1,000 members – from small operators through to councils and large companies. WasteMINZ are the industry view on waste, resource recovery and contaminated land in New Zealand and seek to achieve ongoing and positive development of our industry through strengthening relationships, facilitating collaboration, knowledge sharing and championing the implementation of best practice standards.

The OMSG is one of seven sector groups that WasteMINZ facilities in order to focus attention on the areas and issues that are key concerns to its members. The OMSG is made up of 495 members who represent composting facilities, producers of organic waste; producers of compostable packaging; councils, waste educators and the not for profit sector. The OMSG vision "is to minimise the generation of residual organic materials, and to maximise the value of residual organic materials, ensuring their beneficial reuse."

The Organic Materials Steering Committee supports the move to a circular economy and agrees that initiatives to prioritise reuse are key. As [Earth Overshoot Day](#) highlights the world is consuming resources 1.6 times faster than it can produce them. Therefore, our current rate of production and consumption is unsustainable in the long term. Just as oil is a finite resource so too is fresh water, arable land and top soil.

The view of the Sector Group is that land should be prioritised for growing food, for conservation and wildlife and that packaging and biofuels should be made from organic waste streams rather than land being diverted from growing food to growing packaging materials.

How to maintain and improve the quality of New Zealand soils should be a key lense with which to view any decisions made as a part of this consultation.

This submission will only address the consultation questions which relate specifically to organics as a number of the questions have already been addressed by submissions from other WasteMINZ sector groups.

### **Proposed phasing out of PVC and Polystyrene Packaging**

There is the risk in banning PVC and polystyrene packaging that companies could consider moving to compostable packaging as an alternative instead of moving to recyclable or reusable packaging made from plastics #1, #2 or #5.

All compostable packaging is single use. The Organic Materials sector group encourages reduction, refilling and reuse; then mechanical recycling before composting. If the government is wanting to

move to a circular economy biobased plastics which either be reused or mechanically recycled multiple times are a more effective use of scarce resources than creating compostable packaging.

However, compostable packaging has a role to play in its ability to increase diversion of food waste away from landfill.

The New Zealand composting industry wrote a position paper outlining their view of the potential uses of compostable packaging in 2018. In that paper it was advocated that compostable packaging should be used for:

- Products and packaging that assist in the diversion of food waste from landfill e.g. compostable food waste caddy liners.
- Small hard-to-remove items that cause contamination in both commercial and home composting systems e.g. fruit stickers, tea and coffee bags, asparagus ties, banana tape.
- Agricultural items that are currently made from conventional plastic, where there is a risk that they will inadvertently remain in the soil after use, such as mulch film and net vine clips.

This position has since been adopted by a number of industry bodies around the globe such as APCO<sup>1</sup> and WRAP.<sup>2</sup>

If the government is going to ban either pvc and/or polystyrene packaging, the government needs to

- A. signal that a general move to compostable packaging is not a desired option
- B. or if the government views compostable packaging as an appropriate alternative, the government needs to ensure that the work is funded to enable compostable packaging to be collected, sorted and processed by composting facilities. The work could be funded through the waste minimisation fund or through a product stewardship scheme.

The following pieces of work would need to be undertaken to ensure that compostable packaging is an effective part of the circular economy and not another source of waste to landfill

- The government needs to publish a clear use-case for when compostable packaging should be used as an alternative to existing materials. Currently to process compostable packaging some composters need a ratio of 4-1 green waste to compostable packaging whilst for others the ratio is 20-1.

Given the high demand for organically certified compost (that cannot contain compostable packaging) there is a limit to how much green waste is available to process packaging. Anaerobic digestion plants are unable to process compostable packaging.

Therefore, it is important that compostable packaging is used for reducing contamination in composting and to assist in diversion of food waste from landfill as a primary focus.

- Research needs to be undertaken to determine the availability of greenwaste to determine the theoretical quantity of compostable packaging the New Zealand composting industry could process.

With an estimated 295 million coffee cups in circulation in New Zealand, if they were all accepted for composting that would be equivalent to approximately 6,000 tonnes of packaging which would then require 24,000 tonnes of greenwaste.

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<sup>1</sup> <https://documents.packagingcovenant.org.au/public-documents/Considerations%20for%20Compostable%20Packaging>

<sup>2</sup> <https://www.wrap.org.uk/sites/files/wrap/Considerations-for-compostable-plastic-packaging.pdf>

- Testing needs to be undertaken to determine whether home compostable packaging will break down in New Zealand home composts
- Testing needs to be undertaken to determine what types of composting technologies can process compostable packaging in New Zealand.
- Industry needs to agree on which standard for compostable packaging should be used in New Zealand
- A labelling and certification scheme needs to be developed to identify compostable from non-compostable packaging
- Collection infrastructure needs to be set up to collect these materials
- Some composting facilities will require additional infrastructure to process the material
- Alternative markets will need to be developed to take compost produced with compostable packaging.
- The waste levy will need to continue to increase to ensure that the cost of composting packaging becomes more competitive with landfilling

It is worthwhile noting that composting facilities are not able to produce certified organic compost which they can sell at higher price from compostable plastics. Therefore, any compost produced would be a lower grade and have a lower market value.

#### **Ban on single use items**

##### **Fruit stickers**

The Organic Materials sector group strongly supports the proposed phase out of non-compostable fruit stickers. These stickers contaminate both home and commercial composting systems. Due to their size they are impossible to remove in the pre-screening process.

The New Zealand composting industry sells significant quantities of compost to the horticulture sector who use it on organically certified orchards. This fruit is sold for export at a premium price. By using plastic fruit stickers these growers risk inadvertently leading to plastic entering into their own soil. It is in the horticultural industries own best interests to move to certified commercially compostable or home compostable fruit stickers.

Only certified compostable fruit stickers should be allowed under the legislation to ensure that soil health is protected.

##### **Compostable plastic produce bags**

The committee supports a ban on single use produce bags as once again reuse should be prioritised over any single use items. However, the committee notes that if a complete ban on single use produce bags does not go ahead for any reason, then at a minimum there should be a ban on all single use fossil fuel based plastic, oxydegradable and other variants of degradable bags.

Only compostable plastic films certified to AS 4736 are permitted in New Zealand composting facilities so only compostable plastic produce bags which meet this certification should be permitted. As at 2015 all leading brands of compostable plastic film had already been certified to the standard.

### **Items that escape into the marine environment or contaminate compost**

The Steering Committee is supportive of moves to ban other single use plastic items and believes the focus should be on items which are known to escape into the marine environment or which contaminate compost, so is supportive of a ban on the following items:

- Plastic straws
- Drink stirrers
- Asparagus ties
- Banana tape
- Tea bags
- Coffee pods

### **Compostable food service ware**

Once again, the committee is supportive of a move towards reusables in the first instance. Whilst the committee is supportive of banning single use plastic items such as:

- Tableware (e.g. plastic plates, bowls, cutlery)
- Some single-use cups and lids, made from hard-to-recycle plastics (types 3, 4, 6 and 7 or plastic lined paper cups) – excluding disposable coffee cups

There are concerns with the suitability of existing alternatives for plastic tableware.

### **Compostable plastics**

Many composting facilities in New Zealand sell their compost as organically certified compost. Organically certified compost does not permit compostable plastic as an accepted input. However, it does accept plant only material such as bamboo and bagasse. This limits the number of facilities which can accept compostable plastics.

### **Fibre based compostable packaging**

In preparing for this submission the committee has become aware that many fibre based compostable products may be introducing PFAS into compost. PFAS (per- and polyfluoroalkyl substances) is a group of chemicals with water and oil repelling properties. However, research has shown that PFAS can migrate from soil to plants and then accumulate in humans through the food chain leading to negative health outcomes.

There are several possible sources of PFAS. Many if not all compostable moulded pulp products contain PFAS as a barrier agent. It is the committee's understanding that in particular sugar cane pulp is an issue. In the US companies have pledged to a voluntary phase out over the next three years.

The second source of PFAS in compostable products comes from PFAS which comes from recycled paper and cardboard. PFAS is used in products such as pizza boxes, hot chip boxes, sandwich wrappers etc.

Given that the proposed ban on single plastic and compostable plastic serveware leaves only fibre based compostable products as an alternative the presence of PFAS in these products is a serious risk and research needs to be urgently undertaken to determine the extent of the issue in NZ.

PFAS accumulates in soil over time. Therefore, whilst there are risks for commercial composting facilities the risk is also present for home composters and decentralized community composting where the compost is returned to the same garden and the chemical may concentrate over time. A number of community composting facilities accept and compost concentrated amounts of event waste which often use fibre based compostable food ware.

The Steering Committee recommends that the following actions should be undertaken before making a final decision on the banning of any food service ware.

1. Contact the relevant industry groups to determine whether there are suitable New Zealand replacements which don't contain PFAS.
2. Fund an investigation into compost produced at facilities which accept compostable packaging and facilities which don't to determine the current extent of PFAS contamination. This should also include community composting and smaller scale facilities.

If this research highlights a widespread use of PFAS in compostable packaging and a high risk to soils and therefore human health, then the Steering Committee urges PFAS containing products to also be banned.

The Steering Committee notes that compostable foodservice waste is an appropriate use of compostable packaging as it enables food waste from events in particular to be diverted from landfill and should there be sufficient non PFAS containing fibre alternatives on the market, then they would be supportive of a ban on compostable plastic alternatives to enable more composting facilities around New Zealand to process this waste stream. Please see Appendix A for more information on food service ware products which may contain PFAS.

### **Cotton buds**

The Sector Group is supportive of a ban on plastic cotton buds, but this is not currently a major source of contamination in compost.

### **Coffee cups**

The committee supports a focus on reusable coffee cups in the first instance. The committee would like to see the Waste Minimisation Act updated so that a levy could be imposed on single use coffee cups to discourage their use. The levy could fund the infrastructure to ensure that single use coffee cups can be collected and sent to composting facilities or could be used to subsidize reusable infrastructure. The committee notes that most coffee cups contain PLA, so not every composting facility would be able to collect compostable cups as most facilities in NZ sell organically certified compost where compostable plastics are not permitted. However, provided that a collection infrastructure is set up and the materials collected can be sorted to remove contamination, there are facilities in the North Island which can currently compost this waste stream. Additional investment would be required in the South Island however to ensure that there is a facility which can take these materials.

International Standards for compostability allow for 5% of material to not biodegrade in the biodegradation test. Of that 5% a single material must not make up more than 1%. Innovation in compostable packaging has seen a fibre-based product created where the polymer is dispersed

through the fibres at less than 1% rather than applied as a barrier lining. This may result in microplastics in the resulting compost soil which would not be identified through the standard certification tests. These products are being marketed as plastic-free, due to their low levels of plastics. However, we now know plastic you can't see (i.e. microplastic) is still harmful. More research is needed in this area as packaging technology races ahead of science.

The Steering Committee strongly urges regulation or standards be created for fibre products both for recycling and composting to ensure that these products can be genuinely either recycled or composted without causing environmental harm to the soil.

### **Degradables / Oxydegradables**

The Steering Committee is strongly in favour of a ban on all oxydegradables variants of degradables as the marketing of these products often leads consumers to confuse these with compostable and well-intentioned people can end up inadvertently contaminating both composting and recycling.

### **Appendix A**

Research from the United States shows that PFAS can be found in the following food service ware products

- Bowls
- Plates
- Clamshells
- Containers
- Food trays
- Bags such as for rotisserie chicken
- Straws
- Pizza boxes
- Wrappers and liners such as muffin papers, cookie bags

### **Research from the United States shows that PFAS is unlikely to be found in**

- Cups hot and cold
- Cutlery
- Stirrers
- Coffee sleeves
- Napkins

This factsheet lists some of the alternatives on the market to avoid using PFAS.

[https://www.cleanproduction.org/images/ee\\_images/uploads/resources/Alternatives\\_Food\\_Packaging\\_PFAS\\_Fact\\_Sheet\\_CPA\\_1-23-18\\_v2\\_FINAL\\_with\\_logos.pdf](https://www.cleanproduction.org/images/ee_images/uploads/resources/Alternatives_Food_Packaging_PFAS_Fact_Sheet_CPA_1-23-18_v2_FINAL_with_logos.pdf)