

Standardisation of kerbside collections in Aotearoa

Implications for the food & grocery sector

Report released February 2021

Report by Mad World Ltd

Background

Whilst other countries are looking at how to increase what is collected for recycling, we risk “standardising down”.

This is the third report in Mad World’s series looking at what is collected for recycling around New Zealand. In the first two reports: *An Assessment of Materials Collected for Recycling at Kerbside New Zealand & Australia* and *New Zealand needs a Collaborative approach to Recycling & Waste*, we charted the decline in the range of materials collected at kerbside as part of a move to standardising collection services.

In August 2020, a report prepared by WasteMINZ for the Ministry for the Environment (MfE) was released which provided recommendations to standardise domestic kerbside collections of waste to increase consistency, reduce confusion for householders, improve material quality and reduce residual rubbish to landfill.

Very few would argue with these objectives. However, before the recommendations get implemented in full as part of the MfE’s implementation plan, it is important to consider the broader implications of a number of the proposals if they were to be implemented.

It is also important to understand what products would be “excluded”, either by material type or size, as well as the exceptions to the rule. For example, the report says “no items smaller than 55 mm¹ in diameter” will be accepted, but it does not specify that this requirement refers to specific materials. On the face of it, this applies to all packaging materials. On further investigation this “rule” would apparently exclude glass containers which will be accepted by recyclers whatever the size.

If the intent of standardising kerbside collections is to help reduce confusion for the consumer, having exclusions to the inclusions will not help achieve this goal.

Whilst other countries are looking at how to increase what is collected for recycling, we risk “standardising down”. Mad World is receiving enquiries from members about what is and what is not going to be accepted. This report looks at some of the issues raised, and assesses 76 food, beverage and household items for their packaging recyclability based on the proposed new guidelines for kerbside collections.

¹ WasteMINZ report cites 50mm diameter in 7.1 but 55 mm in other parts of the report.

Snapshot of research

One in two products in the sample survey have caps, lids or triggers which will not be collected at kerbside

Mad World selected 76 products that are common household items and their packaging, and then reviewed the on pack labelling for information about recyclability. Some products utilise more than one material in the packaging.

The 76 products reviewed included 125 separate packaging items – most typically involving some sort of a closure (e.g. a cap or a lid).

53% have removable lids, caps or triggers, which will not be collected at kerbside whatever material, and whatever their size, under the new proposals which state that these items must be removed and placed in the rubbish. **36%** use materials that are either not accepted or are deemed to be too small.

From the selected products, only one in three packaging units would be collected at kerbside.



Improving collection systems

“Let’s stop trying to unscramble the egg”

The review of kerbside collections needs to also consider infrastructure for compostable products to meet the New Zealand Plastic Packaging Declaration

There is clear global and national evidence that source separation of materials at kerbside will produce higher quality recyclate than commingled materials.

The WasteMINZ report recommends that glass is collected separately from other recyclable materials to improve the quality of all materials accepted in kerbside recycling. This will increase the value of the recovered glass and reduce the contamination from glass pieces on other materials.

The Food & Grocery Council’s Paper Recycling Sub Committee also advocates that fibre is collected separately because if paper is commingled with plastic bottles and cans, metal and plastic pieces and liquids contaminate the paper, which reduces its quality and value. It is essential that in current global markets, maximum value is retained in these waste streams.

The report recommends a kerbside food waste collection service, but excludes compostable products. Compostable packaging was included in the Plastic Packaging Declaration commitments for all plastic packaging to be reusable, recyclable or compostable by 2025. Without commitment to a kerbside collection system for compostable packaging/products, compostability is not a viable alternative for brand owners. There is still significant variation in the materials designated by industry about the nature of what is genuinely compostable.

The Food & Grocery Council has acknowledged this in its guidance to members that they should not introduce compostable plastic products into the supply chain until there is infrastructure in place and agreement about breakdown time of materials. See Appendix 2.

The Standardising of Kerbside Collections would be an ideal opportunity to introduce a nationwide compostable programme with investment in collection and processing infrastructure supported from the increased waste levy.

Materials which will be collected at kerbside?

Items smaller than 55mm in diameter and all lids, caps and triggers will NOT be collected at kerbside

The WasteMINZ report recommends that the following containers **should** be accepted at kerbside across New Zealand:

Material Type	Packaging Type	Details
Plastic	Resin 1 - PET Resin 2 - HDPE Resin 5 - PP	Grocery packaging only and must be clean and presented without lids or inserts
Metal	Aluminium beverage cans and steel food cans Aerosols from kitchen, bathroom and laundry	Empty, rinsed clean. No tabs or lids or trigger pumps
Glass	Glass food and beverage bottles and jars	Clean without lids. No non-food or non-beverage bottles (for example cosmetic products)
Paper	Paper, paperboard and cardboard	No shredded paper, till receipts or composite materials

If a proposed Container Return Scheme (CRS) is introduced for beverage containers this would reduce further the materials collected at kerbside, because the vast majority of PET drinks containers – HDPE milk and fruit juice bottles, aluminium cans and glass bottles – would likely be removed from kerbside collections.

The report’s authors note that this could result in less frequent kerbside recycling collections.



Materials which will not be collected at kerbside

This is a list with potential far-reaching consequences for industry.

Material Type	Packaging Type	Details
Plastic	Resin 3 – PVC Resin 4 – LDPE Resin 6 – PS Resin 7 – Other Some PET; HDPE; PP	Includes nonPET and coloured chocolate, biscuit and cracker trays Film lids Laminated pouches Polystyrene
Metal	Aluminium foil Aluminium trays Aluminium tubes Laminated foil Loose tabs Metal lids	
Glass	Non-food or beverage bottles	e.g. perfume, aftershave, face creams
Paper	Shredded paper, till receipts, liquid paperboard	
All materials	No items less than 55m in diameter No lids including large lids, triggers or pumps No containers larger than 3 litres	



Summary of Mad World packaging assessment

88% items in the sample have one or more elements of packaging which will not be collected at kerbside

Mad World has assessed 76 food and beverage items, as well as household goods, against the proposed kerbside collection recommendations. The full list of products selected for review is in Appendix 1.

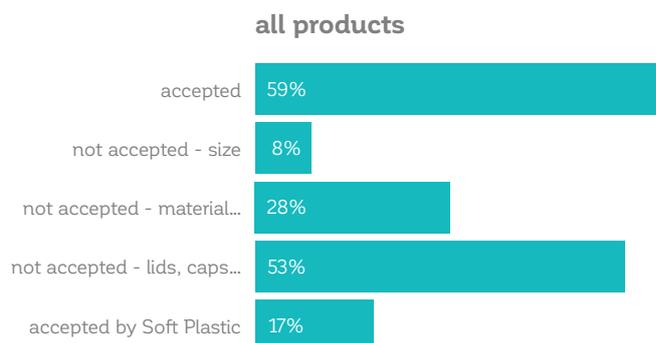
These products may have more than one type of packaging and, therefore, be counted more than once (hence the reason why percentages below are above 100% when added).

59% products have part, or all of their packaging comply with the recyclability criteria

36% products would not be accepted as too small, or made from a material not collected for recycling, or were products not suitable for recycling

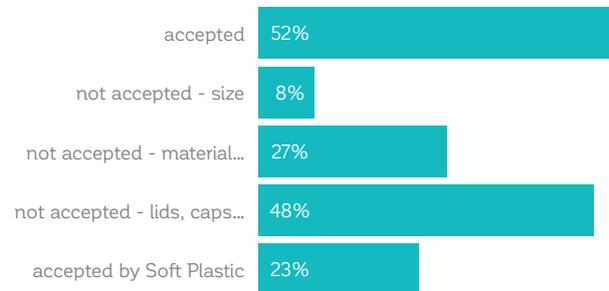
53% items had lids, caps or triggers, which will NOT be collected at kerbside irrespective of what material they are made from

17% products are acceptable to the Soft Plastic Recycling Scheme if consumers take the packaging to a participating store.



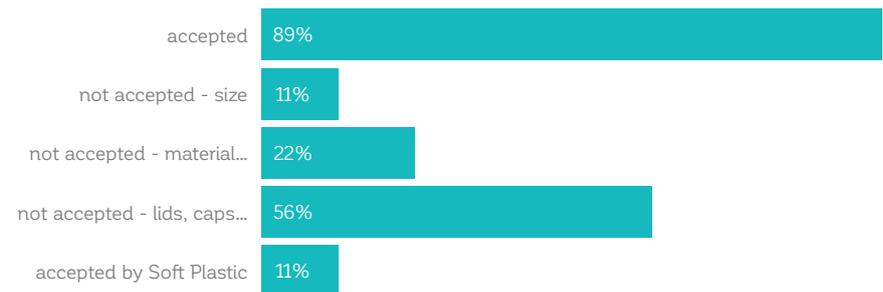
Of the 48 food packs assessed, 52% have some or all of their packaging which is recyclable. 35% is not accepted due to size or material type and 48% have lids, caps or triggers which are deemed not recyclable.

food product and packaging



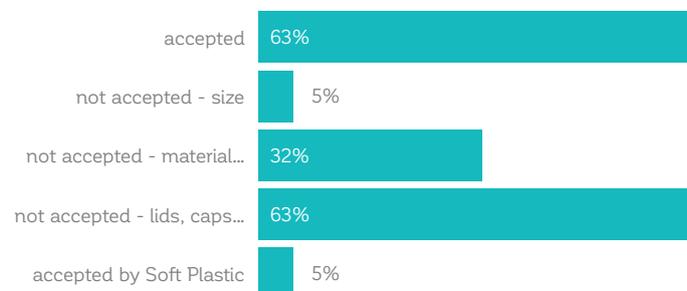
Of the nine items of beverages assessed, 89% have some or all of their packaging which is recyclable. 33% is not accepted due to size or material type and 56% have lids, caps or triggers which are deemed not recyclable.

beverage product and packaging



Of the 19 items of household goods assessed, 63% have some or all of their packaging which is recyclable. 37% is not accepted due to size or material type and 63% have lids, caps or triggers which are not recyclable.

household goods and packaging



Summary of WasteMINZ report recommendations

Brands will struggle to deliver on their Plastic Packaging Declaration commitments by 2025 if these proposals are implemented

Align kerbside collections with proposed ban on certain plastic resin types

The report recommends the phase out of use of plastics 3,4,6 and 7 in consumer packaging. The report should specify rigid plastic LDPE (4), not soft plastics.

The Packaging Forum's Soft Plastic Recycling Scheme collects flexible plastic packaging, which has at least 70% by weight LDPE/HDPE or PP, and less than 30% by weight of PET, nylon, foil or EVOH. This scheme provides a drop off service for a range of soft plastic packaging including laminated pouches and film lids. The recommendations in the WasteMINZ report do not impact the Soft Plastic Recycling Scheme.

Size matters

The report recommends that items smaller than 55mm in diameter – “nothing smaller than the size of a small yoghurt container” (e.g. bottle caps, lids, bread bag tags, small bottles, yoghurt pottles will not be collected.) Note the report mentions both 50mm and 55mm in diameter.

This would include small products such as glass and fibre spice containers, which are designed to fit on shelf. On further investigation, glass containers will continue to be accepted irrespective of size. It is not clear whether fibre packaging or aluminium cans under the 55mm diameter threshold will be excluded.

There are implications for businesses using every material type, and for households that will need to assess the size of packaging and remove lids, putting these materials in the rubbish even if the material is actually recyclable.

Aluminium packaging

Aluminium foil trays will be excluded from kerbside collections. However, overseas supermarkets have seen a shift from difficult to recycle plastics to aluminium, because it is as effective as plastic, but can be recycled repeatedly with a value. We are seeing the same trend here with foil trays increasingly being used for the home ready meal market, and this will continue as brands move away from PVC and polystyrene containers which are set to be banned. Aluminium foil containers are also widely used in hospitals, rest homes and by airlines, due to the material's safety and ease of use.

In Australia, UK and Europe, consumers are advised to scrunch their clean, dry aluminium foil into a large ball so that it is recognised at the MRF by the optical sorters. Flattened aluminium foil can be confused with paper.

The introduction of a CRS would provide a separate collection system for cans and with continued, and much needed, investment by the government in upgrading MRFs, it is hard to see why aluminium foil (which contains 96.8%-99% pure aluminium with an export value of USD1,100 per tonne) will be consigned to rubbish collections and landfill.

Avoiding perverse outcomes

The Government's Consultation Paper on phasing out "Hard to Recycle Plastics" proposes a ban on polystyrene and PVC packaging.

Most yoghurt/dairy pots are made from High Impact Polystyrene (HIPS) because it is malleable, clear and snappable. Its functionality is particularly significant for shelf life and impact resistance. If a ban were to be introduced, brands will need to replace current filling lines, so that they can substitute other plastic resins. However, if small pack sizes (portion packs) are not recyclable, no matter what the material is made from, it would make no sense to change a portion pack from HIPS to PET at a significant capital cost and packaging on-cost, for no benefit to the circular economy – they will both go to the waste stream.

Another example is the move from plastic bread tags to cardboard tags to increase recyclability. Under the proposals, cardboard tags will also be rejected from kerbside collections due to size.

Summary

Standardisation criteria should be developed after technology upgrades are evaluated not before... and the criteria need to be regularly reviewed as technology improves.

Investment in recycling technology should increase recyclability

The New Zealand government is investing \$124 million in recycling infrastructure, including improved sortation systems and new technology for processing. These will necessarily have an impact on the degree of difficulty of recycling. New technologies are already emerging which now process previously 'hard-to-recycle' materials. This warrants serious consideration. For example, work undertaken in the UK Ellen MacArthur Foundation's New Plastic Economy group, and chemical recycling projects in Australia.

In Australia, standardising kerbside collections is listed in the National Waste Policy Action Plan, however the food and grocery industry advocates that standardisation criteria should be created after the implementation of quality specifications for processors and MRFs. This will allow the criteria to reflect the increasing benefits from new technology.

This makes good sense for New Zealand; and, there should be annual/regular reviews by an independent panel, which includes representation from the food and grocery sector, to assess what is collected at kerbside based on emerging packaging trends and new technology.

The NZ Food & Grocery Council is advocating for greater alignment between Australia and New Zealand on packaging design and product stewardship given the interdependent nature of the industry.

There are questions here in New Zealand, and in Australia, about the reason and value in setting a 55mm diameter threshold for collections. Based on Mad World's sample assessment of products and their packaging, 88% of the products sampled would have part or all of their packaging rejected because the primary packaging is too small, the material is not accepted or there are lids, caps and triggers on the packaging.

Many brands have invested in plants that allow them to have lids or caps which are made from recyclable materials; and separate closures are not a "nice to have", but rather a fundamental food safety requirement for many containers.

Appendix 1

CATEGORY | BEVERAGE

Product	Size	Material	Comments	Accepted		Not accepted		
				At kerbside	Too small	Material type	Store drop off	Cap/lid
Brut - champagne	750ml	glass	cork/foil not recyclable	1				1
Dilmah Earl Grey Tea	100g	box + individually wrapped	sealed foil	1		1		
Jeds Coffee Freeze Dried	100g	glass jar	cap not recyclable	1				1
Nescafe Dolce C Latte	183g	card box	coffee pod capsule not recyclable	1		1		
Schweppes Soda	250ml	aluminium	has a 50mm base		1			
Seagers Dry Gin	1L	glass bottle	metal top, no recycling info	1				1
Coca Cola	12x330ml	aluminium	cans plus box plus tab	1				1
Ti Ora Herbal Infusion Mint	16.5g	box + individually wrapped	individual bag soft plastic	1			1	
Waipara Hills Wine	750ml	glass	cap not recyclable	1				1
Beverage sub total	9			8	1	2	1	5
% total				89	11	22	11	56

CATEGORY | FOOD

Product	Size	Material	Comments	Accepted		Not accepted		
				At kerbside	Too small	Material type	Store drop off	Cap/lid
BBQ Sauce	250g	pouch with screw top	no disposal information			1		1
Manuka Honey	340g	plastic 1	lid is plastic 5	1				1
Anchor Butter	500g	greased paper wrap				1		
Barilla Sauce	400g	glass	steel lid	1				1
Beehive Streaky Bacon	500g	LDPE 4	soft plastics if washed				1	
Campbells Real Stock	1L	Tetrapak	plastic lid and insert not recycled			1		
Champion White Flour	1.5kg	paper	no recycle logo	1				
Chef Stock	190ml	PET 1	lid is plastic 5	1				1
Chelsea Sugar		paper	no instructions	1				
Countdown Canola Oil	1L	2 x plastics	plastic resin not shown			1		
Danube Orchards Strawberries	250g	PET 1	soft plastics lid	1				
Delmaine Tortellini	300g	plastic 7	including lid			1		
Delmaine Dijon French Mustard	275g	glass pottle	coated steel lid					
Eta Potato Salad Dressing	400ml	PET 1	plastic lid ad ring, not sure of type	1				1
F Whitlock Sauce (Cerebos)	500g	pouch	no instruction or resin details			1		
Flora Light Spread	500g	PP5	including lid	1				
Hansells Baking Powder	150g	plastic	resin not specified - lid #2			1		1
Hansells T&C Vanilla Yoghurt	220g	pouch lined	no disposal advice			1		
Heinz Tomato Ketchup	500ml	HDPE?	plastic 2 white cap with inbuilt	1				1
Hubbards Fruit & Nut Muesli	1.2kg	bag	soft plastic recycling				1	
Kraft Mac & Cheese	205g	paper packet	please recycle logo	1				
Mainland Tasty Cheese	700g	soft plastic					1	
Mainland Tasty Grated Cheese	375g	soft plastic					1	
Masterfoods Chilli Flakes	18g	glass and plastic lid	also plastic shaker insert. 40mm		1			1
Masterfoods Honey Mustard	275g	rigid LDPE	mixed source plastic lid			1		
McCains Baby Peas	1kg	soft plastic					1	
Meadow Fresh Lite Sour Cream	125g		pottle & wrap less than 50mm		1			1
Meadow Fresh Milk		HDPE 2	bottle & cap both 2	1				1
Mrs Rogers Oregano	10g	card	soft plastic bag + box too small		1		1	
Nestle Soup Mix	32g	foil sachet	landfill			1		
New World Beef Mince	500g	PET tray	tray recyclable - film is not	1		1		
Oakberry Farm Blueberries	125g	PET 1	PET punnet	1				

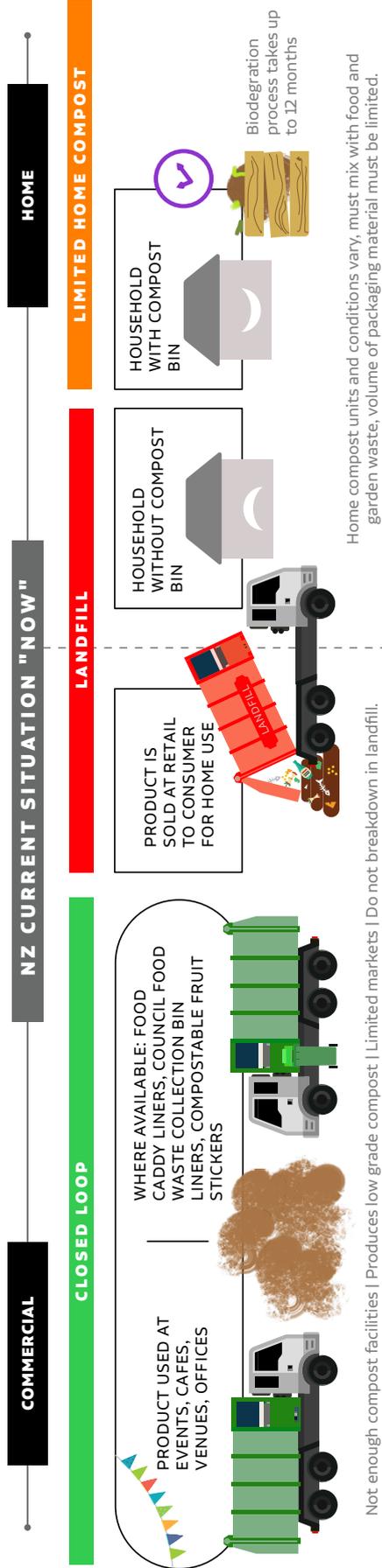
Old El Paso Beans	455g	steel	lid to be disposed. 70mm base	1				1	
Old El Paso Crispy Chicken	370g	carbon & pouches	1 x packet, 1 x pouch	1		1	1		
Pams Pure Olive Oil	1L	glass	metal cap, plastic pouring insert. ring	1				1	
Pams Whipped Cream	250g	steel aerosol	plastic lid & nozzle not recyclable	1				1	
Pedigree Dry Dog Food	15kg	laminated plastic					1		
Real Foods Lemon Juice	250ml	glass bottle	metal lid. 55mm wide	1				1	
Sanitarium Peanut Butter	500g	plastic 5	including lid	1				1	
Sealord Tuna in Saltwater	185g	steel	lid	1				1	
Shore Mariner Sliced Onions	1kg	soft plastic						1	
Taste of India Spice Mix	425g	pouch & small pack of spice	not currently recycled			1	1		
TCC Coconut Milk	165ml	steel	50mm base		1				
Teriyaki Sauce	200ml	glass	metal lid, plastic seal	1				1	
Tip Top Vanilla Ice Cream	2L	tub & lid plastic 5	large lids not collected	1				1	
Watties Chicken Soup	535g	steel	lid not recyclable once removed	1				1	
Watties Tomato Paste	130g	steel	lid not recyclable once removed	1				1	
Uncle Bens T&B Rice	250g	pouch	no recycling information					1	
Food sub total	48			25	4	11	13	23	
				% total	52	8	27	23	48

CATEGORY | HOUSEHOLD GOODS

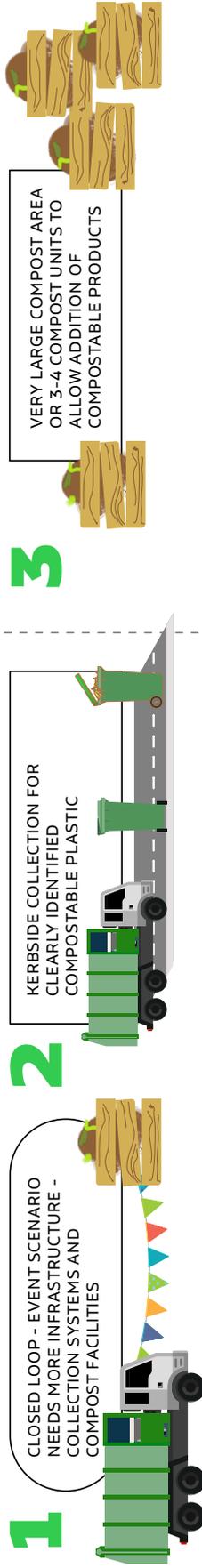
Product	Size	Material	Comments	Accepted		Not accepted		Cap/lid	
				At kerbside	Too small	Material type	Store drop off		
Colgate Pump	130g		plastic & foil cover plus lid. no instruct			1		1	
Colgate Toothpaste	tube		no instructions plus lid			1		1	
Cussons Dishwash Liquid	400ml	HDPE 2	bottle lid smaller than 40mm	1				1	
Dettol Cleaning Fluid	500ml	HDPE 2	trigger & lid to landfill	1				1	
Dove Deodorant	50ml		<55mm. no details of resin type + cap		1			1	
Earthwise Shampoo/Condition		HDPE 2	lid not identified	1				1	
Ecostore multipurpose cleaner		HDPE 2	bottle & trigger both 2	1		1		1	
Finish Powerball Tablets	110 tabs	card	plastic wrap around tablets not recycla	1				1	
Harpic Toilet Cleaner		HDPE 2	plus trigger pump	1				1	
Kleenex 3 Ply Tissues	95	card plus plastic insert		1					
Kleenex Toilet Rolls	12	LDPE	Recycle				1		
L'Oreal Day Care		glass bottle + metal lid	box + glass jar + metla lid. cosmetic			1			
Lotus Hand Sanitiser	500ml	PET 1	pump to landfill	1				1	
Nivea Antiperspirant		aluminium aerosol		1					
Palmolive Shower Gel		PET 1	PET bottle + HDPE lid	1				1	
Palmolive Soap	85g	lined paper	no instructions			1			
Persil Washing Powder	4kg	card	instructions are empty & dispose	1					
Radox		PP 5	ARL - bottle + cap	1				1	
Aluminium Foil Tray		aluminium	aluminium trays not collected			1			
Household Goods sub total	19			12	1	6	1	12	
				% total	63	5	32	5	63

Appendix 2

WHY HAS FGC ADVISED ITS MEMBERS NOT TO INTRODUCE COMPOSTABLE PLASTIC PACKAGING/PRODUCTS FOR "NOW" STARTING THE JOURNEY TOWARDS A SOLUTION



WHAT'S THE ANSWER?



FOUNDATION / BUILDING BLOCKS

- 1** ADOPTING NZ STANDARD FOR COMPOSTABLE PLASTICS
- 2** GOVERNMENT SUPPORT / FUNDING
- 3** CHANGE TO RECYCLABLE INCLUDING PLANT-BASED PLASTICS
- 4** NATIONWIDE EDUCATION / LABELLING

IDEAL OUTCOME

INTERNATIONAL STANDARDS

NZ STANDARD ADOPTED



Further information

For further information on the specific details of this research please contact Mad World Ltd. Mad World was established in 2001 and helps businesses grow to become more sustainable, particularly in the areas of packaging waste management and product recycling. We have managed high-profile national projects associated with the development of domestic recycling systems and infrastructure.

Since the creation of the Waste Minimisation Fund in 2009, Mad World has successfully helped clients obtain finance from the government, securing nearly \$20 million in project support. We offer our clients a range of services, which include:

- **Conducting a waste audit at your business, in order to understand the volume and types of waste your operations produce and identify ways to reduce waste and increase recycling. A review of your waste disposal costs. Waste education.**
- **Helping you make better choices about your packaging so that you are able to meet industry and government commitments for packaging to be reusable, recyclable or compostable by 2025.**
- **Measuring your Greenhouse Gas (GHG) footprint and providing a reduction pathway - voluntary greenhouse gas emissions reporting.**



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