

**A Study of Single-Use Plastic (SUP) used to Package Fresh Fruit, Salad and Vegetables
in East Dunbartonshire**

February 2022

Justice & Peace Groups, St. Andrew's Bearsden; St. Joseph's Milngavie

1.0 Aims

Single-use plastic products (SUPs) are used once, or for a short period of time, and then discarded. This study was designed to establish the current employment of Single-Use Plastic (SUP) packaging in major product lines offered by supermarkets in East Dunbartonshire. We chose to monitor a selective sample of fruit, salad and seasonal vegetables. We also noted the provision of non-plastic carrier bags fresh produce bags and other non-plastic alternatives. We aim to use these baseline results to track progress in the reduction and phasing out of SUP packaging.

2.0 Summary of Findings

Given that major food retailers have long been aware of the problems caused by SUPs, despite innovations in some areas, the overall findings from our survey are disappointing. The vast bulk of produce continues to be wrapped in SUP, which, with some notable exceptions, also prevails as the default setting for the provision of paid-for carrier bags and bags used to pack loose produce.

3.0. Background

Today plastic packaging of food products of all description has largely replaced the use of the traditional brown paper / string bag by greengrocers, fishmongers and butchers. Until recently this use of plastic packaging was largely unquestioned and indeed generally regarded as more efficient and cost effective for the retailer and more hygienic for the customer.

That is no longer the case. Nowadays our oceans rivers and shorelines and roadsides are awash with visible plastic pollution posing a direct threat especially to ocean dwelling wildlife species. Specific attention was drawn to this by the 2017 Blue Planet 11 series, showing graphic images of a turtle being stifled in a plastic bag and albatross chicks eating plastic. Research confirms that persistent microplastic pollutants in our seas and freshwater systems have entered the human food chain via fish stocks. The consequences are as yet unspecified and unquantified but undoubtedly a worry and a risk to human health.

Burying waste does not solve the problem as plastic degrades to microplastic in land fill and eventually filters out into the wider environment.

Burning "recycled" waste releases a host of potential chemical toxins and is a threat to the populations of South-East Asia and West-Africa where this practice is widespread.

Supermarket operators have long been aware of the deleterious effects of plastics on the environment, wildlife and our health and wellbeing. Our question is, *what have the supermarket operators done to redress this issue, particularly with respect to single use plastics (SUP)?*

4.0 Methods

Six members of our Parish Justice and Peace team participated in the study. For comparison, a relative of a member of our group, resident in New Zealand provided data from a supermarket in Nelson NZ . We decided to include most of the big food chains in our sample as each operate a store that was either in East Dunbartonshire or on its margins. Although there was a high variability in the size of store and the available range of produce offered, all of the product items focused on in this report were widely available. Five of the nine stores received a second visit undertaken by second volunteer and within 4 weeks of the initial visit.

The proportion of plastic versus loose packaging was based on visual observation of fruit, vegetables and salad items on display. The following scheme was used to code the level of SUP:

- 80-100% - Extremely high
- 60-80% - Very high
- 40-60%-High
- 20-40%-Moderately low
- 0-20%- Low

The following data were also recorded:

- Paid for bags Plastic /cloth /paper
- Availability of free bags for loose produce
- Availability of fresh fish meat and bakery produce

4.1 SUP Packaging: General Findings

Our study monitored a specific product mix in nine supermarkets operating in East Dunbartonshire and one in Nelson New Zealand. We found the vast bulk of fruit, vegetable and salad produce wrapped in SUP in all nine stores surveyed. With some notable exceptions, this also prevails as the default setting for the provision of paid-for carrier bags and bags used to pack loose produce.

The contrast with the NZ store is stark. However, the emphasis in NZ is on provision of local often seasonal produce and minimal imported. produce This trend in NZ away from plastic is backed by legislation.

In the case of UK packaged Fairtrade bananas it seems that neither the retailers nor the Fairtrade foundation recognize the irony that fair-trade purchasers tend to be more concerned than other consumers about environmental issues.

Given that supermarkets have been aware of the problems caused by SUPs for years, despite innovations in some areas, the overall finding is extremely disappointing.

Bananas: Fair-Trade: *Extremely high* – With exceptions of Morrison’s, whose bananas are wrapped in biodegradable bands, Non-Fairtrade: *Moderately low* in SUP

Peaches/ Nectarines: *Extremely high*

Apples/ Oranges: *Extremely high*

Tomatoes/ Cucumber: *Extremely high*

Broccoli: *Extremely high*. Cauliflower, with some exceptions, shares similarities.

Celery: *Extremely high*: Why do all of the operators use 100% SUP to package celery?

Potatoes: *Extremely high*: SUP ranges from 70% - 90%. Surely this can be lowered?

Carrots. *Extremely high* (60% to 90%). There appears to be no good reason for this.

Leeks: *Extremely high*: With the exception of the Co-op SUP ranged from 70%-100%.

Appendix 1.0: Answers by Question

Q1a. Paid-For Carrier Bags

	Plastic	Cloth	Paper
Tesco	Yes	No	No
Sainsbury	Yes	Yes	No
Asda	Yes	No	No
Morrisons	Yes	Yes-string	No
Aldi	Yes - compostable	No	Yes
Lidl	Yes	No	No
Coop	Yes-3	Yes	
Waitrose	Yes - some recycled ¹	Yes	No
M&S	Yes	No	
New Zealand New World Supermkt.		Yes	Yes

Q1b. Free Bags for Loose Produce

	Plastic	Net	Paper
Tesco	No	No	Yes
Sainsbury	No	Net backs for purchase	No
Asda	Yes – recyclable	No	Yes
Morrisons	No	No	No
Aldi	Yes -compostable	No	No
Lidl	Yes	No	No
Co-op	Yes	No	No
Waitrose	Yes-Compostable	No	No
M&S	No	No	Yes
New World Supermkt, NZ	No	No	Yes

Q1c. There was generally a good range of free bags available for loose produce.

¹ No plastic available on second visit on 20/9/21

Q2. Selected Fruit: Percentage wrapped or loose.

%										
	Bananas		Fair-trade bananas		Apples		Oranges		Peaches/ nectarines	
	SUP	Lse. ²	SUP.	Lse.	SUP	Lse.	SUP	Lse.	SUP	Lse.
Tesco	-	100	50	50 ³	75	25	80 ⁴	20	100	-
Sainsbury	-	-	50	50	60	40	80	20	na	Na
Asda	50	50	-	-	95	5	85 ⁵	15	80 ⁶	20
Morrisons	-	100	-	-	100	-	80	20	na	Na
Aldi	100	-	100	-	100	-	100	-	100	-
Lidl	50	50	100	-	80	20	100	-	100	-
Coop	-	-	50	50	80	20	80	20	100	-
Waitrose	90	10	90	10	90	10	10	90	100	-
M&S	-	100	100	-	90	10	90	10	100	-
NZ	20	80	-	-	10	90	10	90	60	40

Q 3. Selected Salad: Percentage SUP or loose

	Tomatoes		Cucumber		Lettuce	
	SUP	Loose	SUP	Loose	SUP	Loose
Tesco	90	-	100	-	100	-
Sainsbury	100	-	100	-	100	-
Asda	90	10	100	-	100	-
Morrisons	90	10	100	-	100	-
Aldi	100	-	100	-	100	-
Lidl	60	40	100	-	100	-
Coop	50	50	100	-	100	-
Waitrose	90	10	100	-	100	-
M&S	100	-	100	-	100	-
NZ	30	70	80	20	50	50

² Lse. Shorthand for "loose".

³ First audit in August showed 100% wrapped. This score reflects second check on 13/9/21

⁴ Wrapped in net bags

⁵ Plastic nets

⁶ Plastic nets and containers

Q. 4 Selected vegetables

	Potatoes		Celery		Leeks		Carrots		Onions		Broccoli	
	SUP	Lse.	SUP	Lse.	SUP	Lse.	SUP	Lse.	SUP	Lse.	SUP	Lse.
Tesco	90	10	100	-	75	25	60	40	50	50	75	25
Sainsbury	70	30	100	-	70	30	80	20	50	50	70 ⁷	30
Asda	90	10	100	-	80	20	90	10	75	25	100 ⁸	-
Morrison's	100	-	100	-	Na	Na	90	10	50	50	70	30
Aldi	100	-	100	-	100	-	100	-	100	-	100	-
Lidl	80	20	100	-	100	-	50	50	100	-	100	-
Coop	80	20	100	-	50	50	70	30	70	30	100	-
Waitrose	100	-	100	-	100	-	90	10	50	50	100	-
M&S	80 ⁹	20	100	-	60	40	80	20	90	10	80	20
NZ	50	50	-	100	10	90	20	80	40	60	-	100

Qs 5-6. Is there an inhouse fishmonger or butcher?

	Fishmonger	Butcher
Tesco	No	No
Sainsbury	No	No
Asda	No	No
Morrisons	Yes	Yes
Aldi	No	No
Lidl	No	No
Coop	No	No
Waitrose	Yes	Yes
M&S	No	No
NZ	Yes	Yes

⁷ On second visit 100% wrapped

⁸ Spring onions 50/50

⁹ Mix paper and plastic

Sources Consulted

Environmental Investigation Agency (EIA)/Greenpeace (2019-2021). *Checking out on plastics, I, II, III: A survey of supermarkets' progress in reducing plastic waste*. <https://www.greenpeace.org.uk/wp-content/uploads/2021/01/Checking-Out-on-Plastics-III-FINAL.pdf>

Harrad S, C Ibarra, M Robson, L Melymuk, X Zhang, M Diamond, J Douwes. 2009 Polychlorinated biphenyls in indoor dust from Canada, New Zealand, United Kingdom and United States: implications for human exposure. *Chemosphere*. 76(2):232-238.

Ryan P.G. (2015). A Brief History of Marine Litter Research. In: Bergmann M., Gutow L., Klages M. (eds) *Marine Anthropogenic Litter*. Springer, Cham. https://doi.org/10.1007/978-3-319-16510-3_1

Thompson, R. C., Moore, C. J., vom Saal, F. S., & Swan, S. H. (2009). Plastics, the environment and human health: current consensus and future trends. *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*, 364(1526), 2153–2166. <https://doi.org/10.1098/rstb.2009.0053>

Original research undertaken and report compiled by Justice and Peace Groups: St. Joseph's Milngavie & St. Andrew's Bearsden: September-October 2021