

Julie James AS/MS
Y Gweinidog Newid Hinsawdd
Minister for Climate Change



Llywodraeth Cymru
Welsh Government

Eich cyf/Your ref
Ein cyf/Our ref

Llyr Gruffydd MS
Chair of the Climate Change,
Environment and Infrastructure
Committee
Senedd
Cardiff Bay
Cardiff
CF99 1SN

28 September 2022

Dear Llyr

The Environmental Protection (Single-Use Plastics Products) (Wales) Bill, which was introduced on 20 September 2022, proposes to ban all products made of oxo-degradable plastic. During the engagement period of the Bill development, some concerns were raised about the potential negative impact the proposed ban may have on the agricultural sector in Wales.

To better understand the possible impact, two additional research projects were commissioned and completed by ADAS and Aberystwyth University. The key findings from this additional research can be found at Annex A. We have not received permission from the authors to share the reports for publication.

In addition, the Waste and Resources Action Programme (WRAP) has recently completed a survey on public attitudes and behaviours related to carrier bags. The information, which is presented in a PowerPoint format, is attached to this letter.

The research identified there is a broad support for policy interventions regarding single use plastic bags. For example, three quarters of those surveyed supported the ban of single-use plastic bags. Please see the 'Summary and implications' page for more details on the survey's conclusion.

Policy officials are continuing engagement with relevant stakeholders to effectively manage the proposed legislative change and the transition to alternative products. Evidence gathering is also ongoing to ensure all potential impacts are considered in future policy development regarding other single-use products.

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Rydym yn croesawu derbyn gohebiaeth yn Gymraeg. Byddwn yn ateb gohebiaeth a dderbynnir yn Gymraeg yn Gymraeg ac ni fydd gohebu yn Gymraeg yn arwain at oedi.

We welcome receiving correspondence in Welsh. Any correspondence received in Welsh will be answered in Welsh and corresponding in Welsh will not lead to a delay in responding.

Yours sincerely

A handwritten signature in blue ink that reads "Julie James". The signature is written in a cursive, flowing style.

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Minister for Climate Change

The Environmental Protection (Single-Use Plastics Products) (Wales) Bill Oxo-degradable Plastic in Agriculture - Summary of Additional Research

The Environmental Protection (Single-Use Plastics Products) (Wales) Bill proposes to ban all products made of oxo-degradable plastic. Oxo-degradable plastic is a type that includes an additive (usually a metal salt) which is designed to accelerate its fragmentation process, especially when exposed to ultraviolet radiation, heat and other abiotic environmental factors.

Products made from this type of plastic include shopping bags, refuse sacks, disposable cutlery, plastic cups, agricultural mulch films and certain plastic bottles.

During the policy development stage of the Bill, there was a formal consultation on the proposals, followed by targeted engagement with key stakeholders. During this process, reassurances were sought by the farming unions regarding any potential impacts on the agriculture and horticulture sectors in Wales.

To gain a better understanding of the expected impact and inform policy recommendations, additional research by expert bodies was commissioned. This research was completed after the submission of the Explanatory Memorandum (EM) / Regulatory Impact Assessment (RIA) which was prepared to support the passage of the Bill in the Senedd. For this reason, the findings were not included in the EM/RIA.

Additional Research

Two research papers were completed in August 2022:

- *Literature Review: The use of oxo-degradable plastic in Welsh agriculture* by Dr William Stiles - IBERS, Aberystwyth University
- *Oxo-degradable and Oxo-Biodegradable Plastic use in Agriculture and Horticulture in Wales* by JP Metcalfe – ADAS

Summary of Key Findings

- Both papers indicated that oxo-degradable and oxo-biodegradable plastic have a negative impact on the environment, although they also acknowledged that research in this area is ongoing. The ADAS paper does not mention environmental impacts from oxo-biodegradable film. Dr Stiles noted these types of plastic have a “high potential to result in microplastic pollution”, especially “where environmental conditions do not promote breakdown into sufficiently small fragments” or in conditions where any biological processes run more slowly than the initial fragmentation processes
- The ADAS study also warned about microplastic pollution associated with oxo-degradable plastic products, emphasising that microplastics are entering the food chain, and the “effects of microplastic bioaccumulation on animal and human health are not yet fully understood”.
- Plastic is widely used in agriculture. Conventional plastic, which is used for silage wrap, floating crop covers, or poly tunnel covers, is more durable and can be recovered and recycled before it starts to break down into fragments and microplastics.

- According to ADAS, the main agricultural use of the oxo-degradable and oxo-biodegradable plastics in Wales are for mulch films for growing maize/sweetcorn, early varieties of potatoes, vegetables and fruit, such as raspberries and blackcurrants. The main purpose of mulching film is weed suppression.
- Oxo-degradable mulches are less suitable for recycling than traditional plastic film, due to their level of contamination by soil. When left in place, these mulches degrade and disintegrate in situ, leading to potential microplastic pollution of the soil.
- The evidence base for the use of oxo-degradable plastic in agriculture is limited. The available data indicates that the UK, generally, is one of the least users of oxo-degradable plastics in agriculture, compared to other EU countries.
- In the EU, approximately 2% of all plastic used in agriculture is classed as oxo-degradable. Most of it is used in horticulture as mulch film.
- It is presumed that adoption rates in the UK as a whole are negligible, meaning that “the presence of oxo-degradable plastic as a proportion of Welsh agricultural plastic use is currently highly limited.” (Dr Stiles)
- ADAS concluded that the use of oxo-degradable film in Wales is limited to a minority of crops, hence the impact of the proposed ban is expected to be minimal. However, one of the impacts identified was an increase in the cost of production for affected crops.