

By e-mail to SeneddClimate@senedd.wales
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Environmental Protection (Single-use Plastic Products) (Wales) Bill

Whilst trying to protect the environment of Wales from pollution by plastic - by banning some specific plastic products - the Senedd are being invited to make matters worse, by also banning the very technology which has been invented to deal with this problem.

As plastic litter cannot realistically be collected from the open environment it is obvious that it cannot be re-used or sent to a recycling or composting facility, and it will therefore fragment rapidly into microplastics and will lie or float around for decades. However, a technology has been invented with which ordinary plastic can be made oxo-biodegradable – so called because the plastic will oxidise if discarded in the open, and will convert quickly and automatically into a waxy substance which is biodegradable. Landfill is not relevant here, as degradation is not necessary or desirable, and plastic should not in any event be sent to landfill.

We have invested millions of pounds to test and perfect this British technology, and to prove that it is effective, and does not leave microplastics or any other harmful residues. We have made it available in Wales and in 92 countries around the world for more than 20 years under our d2w trademark, and in several countries it is compulsory to use it for making short-life plastics.

For an audio-visual introduction to the technology see https://www.youtube.com/watch?v=rc-YWqQ_HHY&ab_channel=SymphonyEnvironmental

As it is intended to replace ordinary plastic for short-life products we have prepared the following comparison.

Ordinary Plastic	D2w plastic
Fragments rapidly into microplastics when exposed to weathering.	Converts into a waxy substance which is biodegradable
Can persist in the environment for many decades	Will be biodegraded and removed from the environment up to 90 times faster.
Can be recycled without separation	Can be recycled without separation https://www.biodeg.org/subjects-of-interest/recycling-2/
Cannot be composted	Proved to biodegrade in compost in accordance with ISO 14855 However, sending any kind of plastic to a composting facility is not desirable. See



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A British Public Company

	https://www.biodeg.org/subjects-of-interest/composting/
Strong, printable and sealable, with excellent optical properties	Strong, printable and sealable, with excellent optical properties
Inexpensive	Little or no extra cost
Made from a by-product of refining oil for fuels, which used to be wasted	Made from a by-product of refining oil for fuels, which used to be wasted
Can be made by manufacturers in Wales	Can be made by manufacturers in Wales
Fit for purpose even when wet	Fit for purpose even when wet
Re-usable during its useful life	Re-usable during its useful life

The Consumer Goods Forum support the global use of oxo-biodegradable technology
<https://www.biodeg.org/oxo-degradable-vs-oxo-bio-degradable-plastics/>

This technology is needed in Wales and should not be banned, so para. 1 and 2 Schedule of the Schedule to the Bill should be amended to remove reference to “oxo-degradable plastic” (“plastig oco-so-ddiraddiadwy”).

The reason why these words have been included in the Schedule is to copy Art. 5 of the EU SUP Directive 2019/904, but there was no ban on “oxo-degradable” plastic in the EU Commission’s proposal for this Directive. They were slipped into the draft at the Committee stage in the EU Parliament as a result of lobbying by companies making a type of plastic which they market as compostable (as to which see below). There was no evidence sufficient to justify a ban, and the European Chemicals Agency provided no dossier in support of a ban. Art. 5 of the Directive is therefore under challenge in the General Court of the EU, and it should not be copied in Wales. It has not been copied by the UK Parliament, and d2w technology is lawfully sold throughout the UK.

Whilst protection of the environment is important, it is also important to avoid erecting trade barriers between Wales and England, whose economies are so closely integrated. Further it is a serious matter to deprive anyone of their lawful right to sell their products in Wales, and would be permissible only if is shown on the clearest possible evidence that the proposed restriction is necessary to prevent a serious risk to human health or the environment. That is not the case here.

COMMENTS ON THE RESPONSES RECEIVED BY THE WELSH GOVERNMENT TO ITS CONSULTATION ON THE BILL

The responses to the consultation on the Bill have been published on the Welsh Government’s website, and as we expected, they do not show any significant level of support for any ban on “oxo-degradable” or “oxo-biodegradable” plastics.

There were 33 responses, and only 7 of them made any mention of this material at all. Four of them did not support a ban, and only 3 did support a ban.

NOT IN SUPPORT OF A BAN

Symphony's Response is published at <https://www.symphonyenvironmental.com/wp-content/uploads/2022/09/Sym-response-3.9.22-to-Welsh-Bill.pdf>

The BPA Response is published at <https://www.biodeg.org/wp-content/uploads/2022/09/BPA-to-Wales-4.9.22.pdf>

National Farmers' Union Wales

"NFU Cymru believes that decisions to introduce legislation to ban the use of products in Wales should only be taken forward on the basis of evidence with a comprehensive understanding of the full costs and benefits as well as unintended consequences. **In the case of oxo-degradable plastics, the Welsh Government cannot have had any understanding of the impact or the costs and benefits**, since it did not appear to know what specific products it was proposing to ban, the extent of their use on Welsh farms or the availability and costs of suitable alternative products."

"We understand oxo-degradable plastics used in agriculture could include agricultural mulch films for horticulture production." This is correct in relation to oxo-biodegradable plastic, and successful trials have been conducted on a farm in Wales. See <https://www.biodeg.org/wp-content/uploads/2020/09/Pembroke-Mulch-Film-Trial-Report-30.09.13V1.pdf>

"Where alternative products are not yet available or prohibitively costly, then the proposed ban on the use of oxo-degradable products such as agricultural mulch films need to be balanced against wider Welsh Government policy objectives such as the expansion of the horticulture sector in Wales."

"Proposals to ban oxo-degradable plastics, where suitable alternatives are not available, should also be considered in the context of the current challenges to food security caused by supply chain disruption and inflationary pressures."

Community Pharmacy Wales

Under "Oxo-degradable Products" they say: "CPW are not aware of the details of the plastics used as there are many suppliers and some may well come under this category. It would be helpful if there was an exemption for any plastic products used in the packaging or re-packaging of medicines."

SUPPORTING A BAN

The three Respondents who supported a ban are as follows. None of them cited any evidence to justify their position.

The BBIA

This is a lobby group which argues in favour of a bio-based plastic marketed by their clients as "compostable." They are ostensibly concerned for the environment, but they have for more

than ten years been campaigning against oxo-biodegradable plastic in their own commercial interests. See <https://bioplasticsnews.com/2021/12/06/history-anti-oxo-biodegradable-plastics-history/> This is an article researched and written by the editor of Bioplastics News in which he reveals ruthless anti-competitive behaviour by the bio-based plastic industry, and especially by large German and Italian companies in that industry. They have also sought to mislead the UK government. See <https://bioplasticsnews.com/2020/06/04/battle-biodegradable-oxo-compostable-industry/>

The BBIA cites no evidence against oxo-biodegradable plastic in its Response, and concentrates merely on definitions. These are political definitions, drawn from jurisdictions where their anti-competitive lobbying has been successful, and they ignore the only scientific definitions, which are as follows:

“Oxo-degradation” is defined by CEN (the European Standards authority) in TR15351 as “degradation identified as resulting from oxidative cleavage of macromolecules.” This describes ordinary plastics, which abiotically degrade by oxidation in the open environment and create microplastics, but do not become biodegradable except over a very long period of time. We know of no manufacturer who markets his products as “oxo-degradable.” This is a definition used only by those political institutions and reviewers who are not willing to admit that ordinary plastic can be made to biodegrade.

By contrast, “oxo-biodegradation is defined by CEN as “degradation resulting from oxidative and cell-mediated phenomena, either simultaneously or successively”. This means that the plastic degrades by oxidation until its molecular weight is low enough to be accessible to bacteria and fungi, who then recycle it back into nature. These plastics are tested according to ASTM D6954. See <https://www.biodeg.org/wp-content/uploads/2021/02/Swift-evidence-to-BEIS.pdf>

As would be expected, the BBIA are proposing an exemption from the ban for their “compostable” plastic, but this should be rejected. Their type of plastic is marketed on the basis that it will help to reduce food waste, but there are 21 reasons why it is not useful, and many composters and local authorities do not want it. See <https://www.biodeg.org/subjects-of-interest/composting/> In the light of this it is surprising that the Co-op in Wales are using it for carrier-bags and promoting it to their customers.

Moreover, the Welsh Government should not allow the use of the word “compostable” in relation to any kind of plastic, because EN13432 requires that when it biodegrades it must convert within 180 days into CO₂ gas, not into compost.

Nor should the Welsh Government permit that type of plastic to be described as “biodegradable,” because that description misleads the public. It is tested to biodegrade in the special conditions found in a composting facility, not in the open environment.

It does not solve the problem of plastic waste which has escaped into the open environment from which it cannot realistically be collected.

Newport City Council said in its response to the Bill “The Bill may result in an increase in other items that can have a negative impact on recycling initiatives – for example, the use of **‘compostable’ products** that end up mixed with food waste and that may not be accepted by

food waste treatment facilities. Unintended consequences of the Bill would include pressures for organisations to procure alternative products that may perhaps be at a higher price, and therefore a requirement to pass this cost on to consumers. In the current cost of living crisis, combined with possible impact of deposit return scheme resulting in an increase in the price of products to the consumer.”

Foodservice Packaging Association

Like the BBIA, they cite no evidence against oxo-biodegradable plastic, and they copy the definition offered by the BBIA. They too ignore the only scientific definition – the CEN TR15351 definition mentioned above.

Natural Resources Wales

“We support the inclusion of oxo-degradable plastics, and this reflects that they can pose many of the impacts and risks of harm to the environment as plastics produced from petrochemicals, in particular the production of micro-plastics.” In fact, oxo-biodegradable technology is designed not to create microplastics but to convert the plastic into a waxy substance which is biodegradable.

NRW seem to be unaware that in 2017 the EU Commission referred oxo-biodegradable plastic to the European Chemicals Agency (ECHA) because the Commission was concerned that it might create microplastics. ECHA made a call for evidence, and after studying many hundreds of pages of evidence, including <https://www.biodeg.org/wp-content/uploads/2021/02/Scientific-evidence-to-ECHA.pdf> and <https://www.biodeg.org/wp-content/uploads/2021/01/Intertek-Report-to-ECHA-24.5.18.pdf> they said on 30th October 2018 that they were not convinced that microplastics were formed. If the EU’s scientific experts have not been convinced, on what basis could NRW be convinced?

CONCLUSION

The main reason why legislation on plastics has been introduced is because they can lie or float around in the environment for decades if they escape collection, and cannot therefore be re-used, recycled, or taken to a composting facility.

We agree with the Vending and Automated Retail Association, who say in their response “This Bill will contribute little towards the policy intention of reducing litter and will result in significantly increased costs and challenges to the sustainability of their businesses for many vending operators. Those who litter will not change their behaviour because of a change in material. The Bill would simply replace one type of litter with another.”

The Foodservice Packaging Association also said that “many of the items included in the list of those to be banned do not feature in litter survey data while those most featured are not included. No explanation was given for this.”

The better option for this legislation would be to exempt all Single-use products made with oxo-biodegradable plastic, which cost little or no more than the conventional product, and can easily be made by manufacturers in Wales. They can be used, re-used, and recycled

<https://www.biodeg.org/subjects-of-interest/recycling-2/> and will quickly and automatically convert into biodegradable materials if they get into the open environment. They do not need to be taken to a composting facility.

THE EARLIER CONSULTATION

The Information Commissioner has made it clear that “when any individual or organisation attempts to influence the future direction of a particular public authority, there is a pressing need for transparency so that the public can see who is trying to influence policy and why. This acts as a deterrent for anyone wishing exercise, or to accept, undue influence.”

We have therefore requested the Welsh Government under the Freedom of Information Act to send us a copy of all response received to their Consultation Document (WG40193) on “Reducing single use plastics.”

We would be surprised if the responses show any significant support for a ban on oxo-biodegradable plastic, and would be surprised if the general public responding to the consultation had any real understanding of oxo-biodegradable technology.

These responses have not yet been provided to us, and the Committee should not proceed with the Bill insofar as it relates to “oxo-degradable” plastic, until we have had an opportunity to comment upon them.

We are advised by Leading Counsel that any ban which includes oxo-biodegradable technology which is not supported by clear and sufficient scientific evidence would be unlawful, and would be challenged in the High Court.