

# Composting, the European Union and Unemployment

Michael Stephen is a spokesperson from the bioplastics industry. He shares his thoughts and opinion on important issues that are impacting the bioplastics industry. Today, Michael writes about Composting, the European Union and Unemployment.



Michael Stephen

## Composting

In [my column on 7th January](#) I said “There are two main types of biodegradable plastic –

A. is designed to biodegrade in the special conditions found in an industrial composting facility, and is tested according to EN13432 or ASTM D6400 or Australian 4736; and

B. is designed to biodegrade if it gets into the open environment, and is tested according to ASTM D6954.

It is extraordinary how many politicians who are concerned about plastic persisting in the open environment are choosing A instead of B, especially where there are no industrial composting facilities in the country or locality concerned. Perhaps they are also unaware that A. is not recyclable and does not convert into compost, but converts instead into CO<sub>2</sub>.

Now it seems that the industrial composters don't want "compostable" plastic.

I have just seen a really important report from the State of Oregon, USA ([Oregon composters don't want Compostable Packagine](#)) in which the industrial composters of Oregon give nine specific reasons and say "Compostable" packaging and service-ware items have been on the rise for the past decade and they are increasingly ending up in our facilities. These materials compromise our composting programs and limit many of the environmental benefits of successful composting.....

... Not only do compostable products often cost more to purchase, they also drive up the costs to operate our facilities and impede our ability to sell finished compost. Compostable packaging is promoted as a means of achieving "zero waste" goals but it burdens composters (and recyclers) with materials that harm our ability to efficiently process recovered materials."

There is also a comment about these plastics in the article published in Bioplastics News today from arstechnica.com It says "if these polymers don't actually have a smaller carbon footprint than plastics refined from petroleum, they may only be another example of greenwashing, a misleading marketing tactic more about image than outcomes." If you consider the fossil fuels used in the agricultural production and polymerisation processes they do not have a smaller carbon footprint.

## European Union

The EU has moved to ban plastic that "does not properly biodegrade and thus contributes to microplastic pollution in the environment, is not compostable, negatively affects the recycling of conventional plastic, and fails to deliver a proven environmental benefit."

This description applies without doubt to "compostable" plastics, because 1. they create microplastics if they get into the open environment instead of into an industrial compost facility 2. They will negatively affect the recycling of conventional plastic if they get into the waste-stream 3. The composters of Oregon have explained why they are not in practice compostable 4. They don't actually have a smaller carbon footprint than plastics refined from petroleum, 5. They will generate methane deep in landfill, and 6. They fail to deliver a proven environmental benefit.

By contrast, I have carefully considered the scientific evidence and am satisfied that d2w oxo-biodegradable plastic does properly biodegrade, does not contribute to microplastic pollution, and does not negatively affect the recycling of conventional plastic. I have in particular considered the scientific evidence reviewed by Peter Susman QC in November 2018, and the more recent evidence from Queen Mary University London. These are both available on the website of the Oxo-biodegradable Plastics Association.

There is no dossier from the European Chemicals Agency showing any cause for concern about oxo-biodegradable plastic.

The only environmental conditions necessary for biodegradation of d2w plastic are oxygen and bacteria, both of which are ubiquitous in the open environment. These plastics are not intended to replace litter control, but to deal with the consequences of failure to control litter on the surface of land or water. They are designed to be inert in landfill, because biodegradation of anything in anaerobic conditions generates methane.

I have also read the reports from the Ellen MacArthur Foundation on what they call oxo-degradable plastics. In their 2017 report they claimed that they simply fragmented and created microplastics, but after engaging with scientists from Symphony Environmental they no longer say that. They admit in their May 2019 report that they are manufactured so that they can degrade faster than conventional plastics and that they do become biodegradable, but they say that “it is not yet possible accurately to predict the duration of the biodegradation for such plastics.”

It is however possible to say with certainty that at any given time and place in the open environment a d2w plastic item will become biodegradable significantly more quickly than an ordinary plastic item. That is the point. – Do we want ordinary plastic which can lie or float around for decades, or d2w plastic which will be recycled back into nature much more quickly? Of course, we don't want plastic waste in the open environment at all, but that is not the present reality.

## **Unemployment**

The law of unintended consequences is operating in Mexico City, where ill-advised ideas for plastic bans have caused a mass-demonstration of workers in the plastics industry who fear for their livelihood. In their view there is nothing wrong with plastic which cannot be cured by making it with oxo-biodegradable technology so that it will no longer lie or float around for decades in the environment.

## **Michael Stephen**

Michael Stephen is a lawyer and was a member of the United Kingdom Parliament, where he served on the Environment Select Committee.

When he left Parliament Symphony Environmental Technologies Plc. attracted his attention because of his interest in the environment.

He is now Deputy Chairman of Symphony, which is listed on the AIM market of the London Stock Exchange, and is the founder and Chairman of the Oxo-biodegradable Plastics Association.

## **Earlier Postings in this Column**

- 1/ 1/ 20 – [Plastiphobia, Microplastics and A Throw-Away Society](#)
- 7/ 1/ 20 – [Recycling, Lab Testing, Bangladesh and the Right Bioplastic](#)

- 14/1/20 – [Plastiphobia and Bioplastics Definitions](#)

## **Interview with Michael Stephen**

- [Questions and Answers on OXO-Biodegradability](#)

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