OXO-BIODEGRADABLE PLASTICS ASSOCIATION

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OPA COMMENTS ON "LET'S BAG IT" MEETING

Professor Richard Thompson, of Plymouth University was speaking at a seminar on carrier bag waste at the European Parliament on February 19. He said "We need to be very careful that if we are selecting a route towards degradability that we are selecting something that will do that." The OPA agrees with this. There are two very different types of biodegradable plastic and it is essential to choose the right one. These are:

"Compostable" - (also loosely known as "bio-based plastics" or "bioplastics") and designed according to EN13432 to biodegrade in the special conditions found in industrial composting, and
Oxo-biodegradable - made from polymers such as PE and PP, containing extra ingredients (which do not include "heavy-metals") designed according to ASTM D6954 to degrade and biodegrade in the open environment leaving no harmful residues.

We should stop using the generic term "biodegradable plastic" as this causes confusion.

If we are concerned about litter in the environment which cannot realistically be collected, there is no point in choosing bioplastics, which obviously have to be collected before they can be composted. Even if they are collected they cannot be recycled.[1] Nor can they be made into compost, because they have to convert to CO2 gas within 180 days. By contrast, oxo-biodegradable plastics can be re-used and recycled during their useful life.[2] Only if ultimately they do not get collected will they degrade and biodegrade in the open environment (not in Prof. Thompson's office). Oxo-biodegradable plastic can be made with existing machinery, and costs little or no more than conventional plastics. Bioplastics are up to 400% more expensive.

At the same meeting Prof. Thompson said that "Plastic is the ideal candidate in a circular economy," - arguing that waste plastic should be seen as a resource. The OPA agrees, and believes that plastic waste should not be sent to landfill, but for the time being a lot of it is sent there. Bioplastics will generate methane (a powerful greenhouse gas) deep in landfill, but oxo-bio will not.

Thompson is reported as saying "Biodegradable plastic bags are a myth." However, it seems that he was referring to bioplastics, as he questioned whether companies should be looking to develop bio-plastics as an alternative to fossil-based plastics. "In reality" he said "the quantity of plant-based material we could grow would be trivial. The OPA agrees with this. The supply of oxo-bio plastic is unlimited, and within the

[1] http://www.biodeg.org/files/uploaded/Roediger%20on%20EuPC%205%20Dec%20'13.pdf
[2] http://www.biodeg.org/files/uploaded/RECYCLING%20Jan%202014.pdf

last two years enough masterbatch has been sold worldwide to make more than 600,000 tonnes of plastic.

At the same meeting Plastic Recyclers Europe president Ton Emans said that as little as 2% degradable material in the recycling stream is creating quality problems for recyclers. This is true of bioplastics, and is confirmed by the TCKT report for EuPC of Nov 2013 to which he referred "These are not just studies, but real facts that we can't ignore if we are serious about plastics waste management," said Emans.

It is not however true in the case of oxo-biodegradable plastics, as confirmed by Roediger Laboratories, who analysed the TCKT report.[3]

Emans continued "Our future in Europe is about developing quality plastics recyclates for producing new goods, and not about down-cycling and misleading the consumer about biodegradability and/or compostability of products in the environment (including marine environment) as promoted by certain companies," he said. The OPA agrees with this, and has proposed that an IDEAL bag should be an oxo-bio bag with 40% recyclate.

However we must be aware that some of the plastic waste will always escape into the environment. It is not acceptable that this should lie or float around for decades, and it must therefore be oxo-biodegradable. Already nine countries have made oxo-bio technology mandatory for short-life plastic products and packaging.

The plastic fragments found in the oceans, and ingested by birds and fish, are fragments of old-fashioned plastics. They are not fragments of oxo-biodegradable plastics which have degraded. In any event the majority of the plastics contributing to the ocean gyres are styrenics and polyamides-which are not derived from the polymer used to make shopper bags, and do not begin to justify a vendetta against shopper bags. An LCA done by Intertek[4] in 2012 shows that in fact oxo-biodegradable plastic bags have the best environmental credentials of all the materials studied.

Shopper bags are not “symptomatic of a throw-away society” – they are symptomatic of a society which moves at a much faster pace than when our grandmothers collected their shopping from the corner shop in wicker baskets.

Oxo-biodegradable plastic is designed to have a service-life so that it can be re-used and recycled, so it will obviously not degrade immediately. However, a material which degrades in one year in the environment is a lot better than one which takes 50 years or more.

The OPA has written to the Chairman of the “Let’s Bag It” meeting, Margrete Auken MEP.[5]

[3] http://www.biodeg.org/files/uploaded/Roediger%20on%20EuPC%205%20Dec%20'13.pdf
[4] http://www.biodeg.org/files/uploaded/Intertek_Final_Report_15.5.12(9).pdf
[5] http://www.biodeg.org/files/uploaded/OPA%20to%20M%20Auken18.12.13.pdf