



# OXO-BIODEGRADABLE PLASTICS ASSOCIATION

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## OPA RESPONSE TO AFOR (formerly the Composting Association)

**March 2010**

The OPA supports the composting of green waste, but we take issue with AFOR on the role of plastics in this process. The OPA does not support vegetable-based “compostable” plastic, which we do not consider to be renewable, nor suitable for most applications.<sup>7</sup> It is also far too expensive for everyday use.

AFOR submitted evidence to the Loughborough report on oxo-biodegradable plastics<sup>8</sup> in which they said that plastics not designed for industrial composting should not get into the industrial composting process. We agree, and as this Association has made clear many times, oxo-biodegradable plastics are not designed or marketed for composting.

Oxo-biodegradable plastics are designed to address the problem caused by plastic waste which gets, deliberately or accidentally, into the open environment where it could lie or float around for decades. If collected during its useful life it can be re-used and recycled (<http://www.biodeg.org/position-papers/recycling/?domain=biodeg.org>), but if not collected it self-destructs without human intervention, leaving no harmful residues.

The evidence of the composting company who contributed to the Loughborough report<sup>9</sup> is that “the best policy is to allow no plastic bags of any sort in the green waste.” Indeed in some countries<sup>10</sup> no plastic of any kind is allowed to enter an industrial composting process. Also, the Loughborough researchers found evidence that even so-called “compostable” plastic does not always work well in industrial composting.<sup>11</sup>

Those few industrial composters who are willing to accept plastic will therefore want to be sure that it is in fact compostable in the particular process (windrow or in-vessel) which they operate, and that it is clearly marked as compostable, for even if oxo-biodegradable plastics did not exist the composters would still need to make sure that they were not accepting

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<sup>7</sup> [http://www.biodeg.org/files/uploaded/biodeg/Oxo\\_vs\\_Hydro-biodegradable.pdf](http://www.biodeg.org/files/uploaded/biodeg/Oxo_vs_Hydro-biodegradable.pdf)

[http://www.biodeg.org/files/uploaded/biodeg/Hydro-biodegradable\\_Plastic\\_Production\\_Process.pdf](http://www.biodeg.org/files/uploaded/biodeg/Hydro-biodegradable_Plastic_Production_Process.pdf)

<sup>8</sup> C6.1

<sup>9</sup> C6.2

<sup>10</sup> Eg French law NFU 44/051

<sup>11</sup> C6.2

normal plastic, which would be even less likely to degrade in the composting process. If they did accept plastic they would need screens to prevent it being caught by the wind, whether the plastic was oxo-biodegradable, compostable, or normal.

Composting is not the same as biodegradation in the environment. Industrial composting is a commercial process operated according to a much shorter timescale than the processes of nature. Therefore, Standards such as ISO 17088, EN13432, and their American (ASTM D6400-04; D6868) and Australian (AS 4736-2006) equivalents, designed for compostable plastic should not be used for plastic which is designed to biodegrade if it gets into the environment. These are specifications for industrial composting. ASTM D6400 states<sup>12</sup> that it “covers plastics and products made from plastics that are designed to be composted in municipal and industrial aerobic composting facilities, and EN13432 states<sup>13</sup> that it does not take into account packaging waste which may end up in the environment through uncontrolled means, ie as litter.

Home composting of plastic packaging can be dangerous and should not be encouraged, as it is often contaminated with meat, fish, or poultry residues, and temperatures may not rise high enough to kill the pathogens.

AFOR is constantly promoting these composting standards as though they were appropriate for oxo-biodegradable plastics. However, they know very well that although oxo-biodegradable plastics are not excluded from those standards by name, they are not designed to biodegrade quickly enough to pass the CO<sub>2</sub> evolution test in Tier 2, for good reasons. These composting Standards require almost complete conversion of the carbon in the plastic to CO<sub>2</sub>, within 180 days, thus perversely depriving the resulting compost of carbon, which is needed for plant growth, and wasting it by emission to atmosphere and contributing to climate-change.

This Association does not agree that “labelling oxo-degradable plastic products as “biodegradable” can lead to confusion on the part of consumers who may assume that “biodegradable plastics” are compostable.” It is obvious that in order to see the word “biodegradable” the consumer has looked at the label, which can and should say “Not intended for composting.”

One of the reasons why there is no standard in Europe suitable for oxo-biodegradable plastics is because AFOR (formerly known as the Composting Association) has used its position in the British Standards Institute to mount a determined and persistent opposition to BS 8472. All reference to composting was removed from BS 8472 more than a year ago, but they are still trying to delay or prevent the adoption of the draft. The oxo-biodegradable plastics industry is therefore obliged to test its products according to American standard ASTM D6954, but customers in Europe would prefer to have a European standard.

All reference to composting was removed from draft BS 8472 not at the request of AFOR, but at the request of the Chairman of the BSI Biodegradability Panel, Professor Scott, with the support of this Association. The absence of a European Standard for oxo-biodegradable plastic gives the compostable plastic industry an unfair marketing advantage, which their representatives on the Standards bodies use their votes to retain.

Even though AFOR are well aware that oxo-biodegradable plastics are not marketed for composting, they continue to campaign against them as if they were. In their evidence to the Loughborough Report they say “Misinterpretation of EN 13432 has occurred because it includes one note [Note to para. 5] that has been quoted without reference to this standard’s other important provisions. The quoted note states that ‘It is important to recognise that it is not necessary that biodegradation of packaging material or packaging be fully completed by the end of biological treatment in technical plants but that it can subsequently be completed during the use of the compost produced’. This has led to the proponents of oxo-degradable plastics saying that this should apply to oxo-degradable plastics. However, EN 13432 strives to limit the risk to compost quality by including another note [Note 2 to para. 7] states that ‘Special attention should be given to the visual aspects of compost. Visual contamination of compost, as evidenced by reduction of aesthetic acceptability, should not be significantly

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<sup>12</sup> Para 1.1

<sup>13</sup> Para 1

increased by any post composting residues of the packaging material introduced'. Clearly there is an interpretation problem and it should be looked at if the standard is reviewed."

For the reasons given above this comment is irrelevant, but it is also confusing two different things. The Note to para 5 is concerned with the time allowed for biodegradation, but note 2 to para 7 is concerned with the appearance of the compost, which is an entirely subjective matter for the customer. The OPA agrees that EN13432 should be amended, but the compostable plastics lobby has used its votes on the Standards bodies to prevent it.

We agree with the packaging manager of Tesco (Britain's largest supermarket) who said on 20<sup>th</sup> October 2009 that the supermarket "does not see the value in packaging that can only be industrially composted" and that "local authorities do not want to touch it, as it can contaminate existing recycling schemes." A few days earlier, Tesco's head of waste and recycling had told a conference that the supermarket group was "not taking compostable packaging any further."

We are all aware that landfill sites in the UK are filling up, but only "0.2% of the average household dustbin is plastic carrier bags.<sup>14</sup> The fraction of landfill represented by plastic shopping bags is 0.05%. This is based on domestic waste being 17% of landfill and plastic bags being 0.2% of the average dustbin.<sup>15</sup>

A far greater impact on saving landfill space would be made by diverting away from landfill bricks, concrete, wood, glass and other building materials and other items such as household appliances, which occupy much more space.

All combustible waste which can no longer be re-used or recycled, should be diverted from landfill to modern incineration facilities, as in other developed countries, where the heat can be put to good use, with no harmful effect on the environment.<sup>16</sup> This is particularly suitable for waste plastics, which do not retain moisture and have a high calorific value.

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<sup>14</sup> Plastic Bag Tax Assessment, HM Treasury, UK, December 2002.

<sup>15</sup> (Packaging and Films Association 2007).

<sup>16</sup> See OPA Position Paper on Incineration