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ESPP input to EU consultation on biobased and degradable plastics

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https://ec.europa.eu/environment/news/public-consultation-biobased-biodegradable-and-compostable-plastics-2022-01-18 en

For ESPP (European Sustainable Phosphorus Platform), degradability of plastics is important because it can significantly impact the nutrient Circular Economy because plastics and microplastics, and additives used in plastics, can be a significant contaminant in and obstacle to valorisation of organic wastes, e.g. sewage sludge, food waste.

Plastics labelled as "degradable" should be fully degraded in anaerobic digesters (AD), as well as in composting (both industrial and household composters), that is should be fully broken down to CO₂ (in composting) or to methane (biogas in anaerobic digestion) or should be broken down to molecules which have agronomic value in soil (nutrient value or soil structure) and which are safe.

Also and importantly, and additives or other materials (fillers, fibres) present in "degradable" plastics should also, similarly, be either fully degradable or should be non-toxic in soil (as such or after partial degradation in composting of AD), and not susceptible to pollute air or water.

Consumers, restaurant owners, etc., cannot be expected to know to what processing route their separated food waste will go, and so cannot be expected to select plastic bags which are "compostable" or "compatible with anaerobic digestion" differently depending on whether they are at the office, at home or travelling ... No labelling suggesting "degradability" should be authorised unless the material (polymer / additives) is fully degradable / safe in all compost and AD processes. Otherwise, plastic remains or breakdown products or toxic additives released from plastics can contaminate composts and digestates, reducing their value or leading to disposal instead of agricultural valorisation, so preventing recycling of nutrients (P, N, micronutrients) and return of carbon to soils.

ESPP considers important that **promotion or labelling of "biobased" should not disadvantage recycling**. Assessments and footprints of biobased content should take into account and credit recycled content, both for plastics polymer (carbon) and for other materials in composites and compounds which can also be recycled (fibres, mineral fillers, phosphorus-based additives ...).

Microplastics are a significant concern for contamination of organic waste streams and a potential obstacle to the nutrient Circular Economy and to return of carbon to soils, e.g. in sewage sludge valorisation, composts, digestates. EU chemical policy should phase out or restrict consumer or industrial chemicals which are found in microplastics or in sewage sludge and which pose potential toxicity or soil- or bio-accumulation issues. Should be addressed in particular PFAS/PFOS and other halogenated compounds, cadmium in artists paints, mercury in dental amalgam.