What is the difference between compostables and biodegradables?

What can we do in our community?

This resource is being used to support the following Audit question:-
Section 4 Land, Buildings & Consumables LAND
Q: 3 – Composting facilities are available on our Synagogue premises.

With huge thanks to Donna Cohen part of the Environmental Impact Team at Barnet United Synagogue for her generosity in sharing this information.

EcoSynagogue presents these companies to you for information only, it is not a recommendation. Each community should do their own research into the best fit for their own needs.

What compostables and how to recycle them?

At Barnet Synagogue, the community found UK & London Recycling Services | First Mile (thefirstmile.co.uk) who until lockdown looked after their recycling.

They buy certified compostable “Edenware” cups (which can be sourced from various places) – which can be washed once and used again - they go into special recycling bags in a green bin provided by First Mile which, when full, gets collected by electric vehicles and sent to their processing plant. At the end of the "virtuous circle" they become fertiliser for the land. There really is a difference between compostable and biodegradable and the correct recycling process is crucial. See below for further information.

Information sourced from: https://thefirstmile.co.uk/the-big-picture/whats-the-difference-between-compostables-and-biodegradables

Is there really a difference?

So let’s get one thing straight: biodegradables and compostables are not the same. They are made from different materials, made through different processes and, most importantly, have very different end-of-life destinations and conditions.

When is something compostable?

To be called compostable, packaging with this material must be certified, which means it was officially tested. It decomposes completely like organic matter in up to 180 days, leaving no toxics or residues behind. Compostables are made from renewable resources and, once they break down, they can be used as fertilisers.
When is something biodegradable?

**Biodegradables** are made of petrochemical-based materials modified to break down quickly by biological processes - using microorganisms such as bacteria and fungi. However, they don’t necessarily include a timeframe for decomposition and conditions needed are not specified. Because of this, biodegradable packaging often ends up in landfills where they can take **years or even decades** to break down, releasing toxic gases throughout.

One of the arguments often used by the industry is that some biodegradable products are photodegradable (break down when exposed to the sun) or oxo-degradable (reacts to oxygen to break down), and therefore they would be a green option. However, this serves to create a bigger problem as they break down into tiny pieces of plastic that never disappear and don’t offer any nutrients to the soil.

To make things worse, these microplastics will ultimately end up in the oceans, harming marine life and more often than not, entering our food chain. From a sustainability perspective, there isn’t much point in biodegradables.

Problems with compostables:

At first it seems obvious that compostables are the greener and most sustainable option, however, there are some issues in terms of composting conditions:

Most compostable items won’t break down in your home compost, and also can’t be disposed of with food. That’s because, although they’re able to decompose back into natural elements, they need special conditions - moisture, temperature, pressure and microorganisms. Home composts don’t meet these criteria - they’re ok to decompose food or garden waste, but not compostable packaging items.

On that note, it’s also interesting to know that food waste is taken to a different location than compostable waste, since they need different processes. While food breaks down by microorganisms at an approximate temperature of 37 degrees in a local Anaerobic Digester, compostable materials need to spend some time in an autoclave in high-pressure conditions and at temperatures of up to 166 degrees. The good part? Eventually, both food and compostables end up fully recycled as fertilisers, and the green energy resulted from this process is used to heat houses in the UK.

Final Word:

Saying no to plastics is already on everybody’s mind, but we also need to be mindful of our alternatives. There is no simple answer. Yes, compostable packaging is a better alternative than plastic for many everyday products - however, it needs to be recycled correctly (that means not in food waste, mixed recycling or general waste), but in a specialist **compostable packaging recycling** service.