

# UNDERSTANDING LABELS

## Citizen Behaviour and Sustainability

What's the difference between **degradable**, **biodegradable** and **compostable**?

General misconceptions about different packaging characteristics or labels make giving packaging materials a proper end-of-life use an extremely challenging task.



### DEGRADABLE

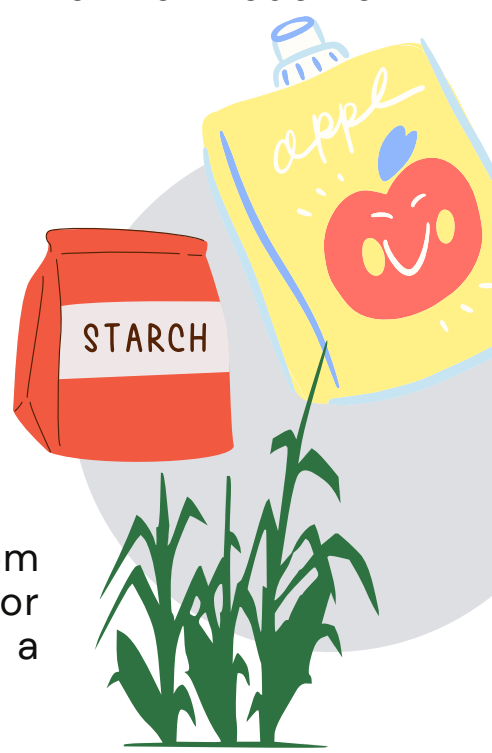
Technically all plastic packaging is **degradable** regardless of its material. It will eventually degrade over time whether it takes decades or a hundred years emitting toxic pollutants when they break down into the environment due to their exposure to air or light.



### BIODEGRADABLE

As a result of the action of micro-organisms, the material is converted to water, carbon dioxide, biomass, and methane.

**Bioplastics** could be either **bio-based** -made from renewable resources from natural feedstocks or synthetically produced i.e., transformed into a polymer.



**NOT** all bio-based plastic is **biodegradable**.  
e.g. polyethene derived from sugar cane, **bio-based PE**, **bio-based PET**, and **bio-based PP**.

### COMPOSTABLE

For a material to be compostable it must:

1. **Biodegrade**: 90% of the organic materials are converted into CO<sub>2</sub> within 6 months and it should break down into carbon dioxide, water, and biomass.

2. **Disintegrate**: no more than 10% residue remains after 3 months of composting and subsequent sifting through a 2mm sieve.

3. **No eco-toxicity**: biodegradation does not produce any toxic material and compost can support plant growth.

Home-compostable and industrially compostable are certified by globally established agencies.



Compostable packaging **CANNOT** be decomposed in any soil environment or just thrown to landfill. **Industrially compostable plastics** require high-level facilities and collection systems in place to allow them to decompose. Even **home-compostable** materials need **suitable environments** to decompose.