



## Bioplastics

This Factsheet illustrates the benefits of using bioplastics today, the scale of this manufacturing industry and how the NNFCC are committed to developing this sector.

### The benefits of bioplastics

The attraction of bioplastics is they deliver environmental benefits even when they aren't biodegradable, and it's all down to renewable carbon.

Plants take CO<sub>2</sub> from the atmosphere as they grow and this carbon goes into bioplastics. When this carbon is subsequently released into the atmosphere, by biodegradation or energy from waste, it will not cause a net increase in greenhouse gases as it will be absorbed by another growing plant. This rapidly renewing carbon cycle is one of the key environmental benefits of renewable materials.

### Bioplastics don't have to biodegrade

Durables like polyethylene terephthalate (PET), polyethylene (PE) and polypropylene (PP) can be made from plants and are identical to their petrochemical counterparts – they can be processed using the same machinery and can be recycled. They reduce fossil fuel consumption and greenhouse gas emissions, and they have the benefits of renewable carbon.

### Bioplastics are produced on a huge scale

Currently production capacity is 327,000 tonnes but this is predicted to rise to 2.1 million tonnes by 2013.



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**The NNFCC is the UK's national centre for renewable materials, fuels and chemicals. If you want to develop bioplastics in the UK, talk to us first.**

- We work with the whole supply chain from sustainable biomass to consumer
- Advisor to the London Organising Committee of the Olympic Games and the Olympic Delivery Authority on using renewable packaging during London 2012
- European Bioplastics Congress of the European and National Bioplastics Organisations and Networks member
- Development of UK Home Composting logo with stakeholders (see over for more)
- Steering group on Defra projects on Oxodegradables and Bioplastics
- Facilitator for UK Renewable Packaging Group
- Current UK project on integrating food waste and bioplastics in anaerobic digestion to produce energy and fertiliser.
- Member of CEN WG 17 on bioplastics and UK representative on CEN WG 209 on biobased materials, working towards standard testing methods for biobased content
- Member of the British Plastics Federation biodegradables group



## Manufacturers

Type of Polymer	Manufacturers	Brand	Applications
Starch	Limagrain Cereales DuPont Stanelco BIOP Biopolymer Biotech Cardia Bioplastics Cerestech Cereplast IGV Grace Biotech Novamont POLYDEN Folienfabrik Plantic Technologies Starch Tech Rodenburg Biopolymers Wenstus Kunststoff	<i>Biolice</i> <i>Biomax</i> <i>Biome</i> <i>BIOPAR</i> <i>Bioplast</i> <i>Cardia</i> <i>Cereley</i> <i>Cereplast Compostables</i> <i>GETREX</i> <i>Grace Bio</i> <i>Mater-Bi</i> <i>Mulchfolie</i> <i>Plantic</i> <i>Re-NEW</i> <i>Solanyl</i> <i>Wenterra</i>	Loose fill, bags, films, trays, wrap film
Cellulosics	Clarifoil Innovia Films	<i>Clarifoil</i> <i>NatureFlex</i>	Flexible film
PLA	FkuR Kunststoff Sidaplast BASF NatureWorks Purac	<i>Bio-Flex</i> <i>EarthFirst</i> <i>Ecovio</i> <i>Ingeo</i> Lactide monomer	Rigid containers, film, barrier coating
Bio-based PET	Coca-Cola	<i>Coca-Cola PlantBottle beverage bottles</i>	Bottles, trays, films
Bio-based PE/PP	Braskem Dow Chemical Company Crystalsev	<i>Bio-PE</i>	Rigid containers, film wrap, barrier coatings, lidding
PHAs	PHB Industrial Brasil Telles Tianan Biologic Material	<i>Biocycle</i> <i>Mirel</i> Y1000P	Films, barrier coatings, trays

## The UK Home Compostable Certification Scheme

The home compostable (HC) scheme is in development. At this stage companies/manufacturers wishing to achieve HC certification can confirm their interest by contacting the Association for Organics Recycling (Afor), [www.organics-recycling.org.uk](http://www.organics-recycling.org.uk).



In the short-term most 'home compostable' products will carry only the home compostable bin logo. It is anticipated that the 'include with food waste collections' logo would be welcomed by consumers who do not compost at home.