



BioBag bags and films replace plastic – manufactured from Mater-Bi; the first family of bioplastics that use vegetable components such as GE (GMO) free starch, cellulose and vegetable oils and biodegradable polymer and natural plasticizers, all crops used are non-food origin. Also some of these crops are grown to assist in remedial land recovery. To be more specific the oils are non-food, non-irrigated members of the Brassica family, grown on marginal land in a European Union country. In other words oils from weed seeds grown on wasteland and specifically no Palm oil. All grades are compostable and biodegradable during composting and include sustainable and renewable resources.

BioBag products reduce climate change gas emissions; CO₂ is absorbed from the atmosphere and O₂ generated during the growing phase, a positive contribution to the reduction of climate change emissions and the carbon footprint. Also saving the consumption of energy and non-renewable resources when compared to alternative products. BioBag's use raw materials of agricultural origin, creating products fit for purpose; these are then returned to the soil, completing a natural, virtuous cycle.

BioBags are certified disposable in home composts, they can be used for animal feed like a pig or worm farm or placed in a green waste collection, even sea creatures can digest BioBag's. They can also be used in organic farm production and food contact applications. Compostability is determined by measuring the actual metabolic conversion of compostable material into carbon dioxide, water and organic humus with no polymeric or toxic residue within 180 days (according to the international standard EN13432). The decomposition rate depends on bacterial activity, the temperature and the moisture level; in quality compost **BioBags** will decompose much quicker than this standard.

The shelf life of BioBag products is approximately two years, this includes time spent in our warehouse, they will look the same after this period but will gradually lose strength as they biodegrade. Biodegradability is dependent on 3 factors; 1) Temperature. 2) Moisture. 3) Microbiological activity. Any combination of two of these will speed biodegradation. It is therefore best to store in a dark, cool, dry place. All product cartons or outers have a 'manufactured date' recorded.

The BioBag Range Includes:

Bin Liners - compostable and biodegradable sizes to fit all bins commercial and domestic.

BioDog – It starts with a dog... and ends with clean parks. Compostable and biodegradable bags, safe, hygienic and a convenient way to follow your dog. A hole in the top can be used for closing the bag after use.

MaxAir – bin and compostable bag is the world's leading user-friendly system for collecting food scraps and reducing organic waste otherwise sent to land fill. Bin ventilation allows the highly breathable bag to dry the contents by approximately 42% (by independent test) over one week and allow aerobic decomposition, minimizing odor, moulds and flies while still an effective barrier against bacteria and viruses. Hygienic; the MaxAir bin is easy to keep clean without the excessive use of detergents or water as with regular bins. The reduced contents, bag and all, can be placed in a green waste collection system or compost.

BioBags – and BioFilm breath so will not sweat or trap gasses, ideal for keeping fresh food fresh. Notice the difference when storing fresh fruit and vegetables or that Christmas ham in the fridge. Research shows a marked reduction in bacterial and fungal growth when using BioBags.

Carry Bags – promotion bags, carry bags, checkout and food bags comply with the food contact regulations. BioBag features are important points of difference for companies keen to portray a caring image.

BioAgri & BioGarden - compostable and biodegradable film that can be laid using conventional machinery. Prevents weed growth removing the reason for herbicides and warms the soil ensuring early germination. BioAgri is permeable to moisture and gas so allows the soil to breath and prevents sweating. DEBIO & BFA certified for organic agriculture, after harvest the film can be left to degrade or ploughed into the soil where it would decompose before the next crop. Saving labor, time, plastic film disposal, costs of disposal and damage to the soil and the environment.

BioToi – A compact lightweight portable toilet with disposable bag liners. A convenient replacement for chemical toilets, hygienic (the bag covers the entire seat), no chemicals, no mess no cleaning no smell. The bags can be collected in a lidded bucket then buried or disposed of directly into any sewerage collection system; bags will also fit most other portable toilets.

BioGarden Bags – if these bags are included in your green waste then the bag will just compost along with the contents.

All **BioBag** products, including the inks or dyes, are fully independently certified by recognised certifying bodies to many international standards these include:

DIN CERTCO/IBAW Recognised German certifying body

AIB-Vincotte Recognised Belgium certifying body

BPI Recognised USA certifying body; Biodegradable Products Institute

IIP Recognised certifying body; Institute of Italian Plastics

CEN European Committee for Standardization

JBPA Recognised certifying body; Japan Bioplastics Association

AS Australian Standard AS4736-2006

AIB-Vincotte Belgium 'OK Compost' EN 13432; Nr S-i1, Nr S-i3 and Nr S-i4

Belgium Printing Ink 'OK Compost' EN 13432; Nr S-i2

Belgium 'OK Compost Home' EN 13432

Belgium 'OK Biodegradable Soil' being biodegradable in the soil

VGS European VGS; Nr S-i5 and Nr S-i6

DIN CERTCO/IBAW German Biodegradable and Compostable EN 13432 and DIN V 54900

German ASTM D6400 and Nr S-i7

BPI USA Compostable Standard; ASTM D6400-99

USA Composting Council; Nr S-US1

USA California Law; SB 1749

Apple Certificate Finland; EN 13432, Nr S-fi1

JBPA Japan Bioplastics Association; GreenPla

EK Certificate Norway Safe for food packaging; EK Certificate Nr S-no1

NNAIS Norway Recyclable into animal feed; NNAIS Nr S-no2

NASAA The National Association for Sustainable Agriculture of Australia: Allowed Input

BFA Biological Farmers of Australia; Allowed Input 10539AI

DEBIO Norway, certified usable in Organic Production; DEBIO Nr S-no3

AIAB An IFOAM member (International Foundation for Organic Agriculture) certify suitability in Organic farming

