



MATER-BI

COMPOSTABLE CLIPS AND OTHER CULTIVATION PRODUCTS



MATER-BI FOR AGRICULTURE

MATER-BI is a family of fully **biodegradable and compostable** bioplastics which use renewable resources to provide a solution with low environmental impact and to solve specific environmental problems in various sectors, such as foodservice, packaging and separate collection of organic waste.

BATO and NOVAMONT to reduce the plastic waste impact in the greenhouses.

Cultivation products – such as clippers, hooks, truss supports – are being used in greenhouses to support the growth of crops like tomatoes, cucumbers and peppers.

BATO, since 2004, has chosen the MATER-BI, a fully biodegradable and compostable material (according to the European Standard UNI EN 13432) by NOVAMONT SPA to produce its line of low impact clips.

THE ADVANTAGES

The advantages of biodegradable and compostable products are:

- biodegradable and compostable clips ensure the same performance in use as traditional plastic clips;
- clips ensure the best plant stem guidance in the production of vegetables and other crops;
- no longer necessary to keep turning the plant stems along the twine. In this way labour costs are being reduced;
- the plants are not restricted in their growth, which results in

increase in yield and quality;

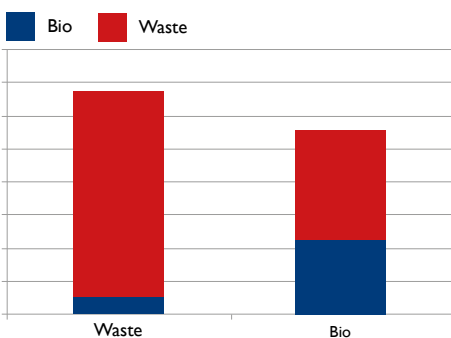
- the cultivation products are certified biodegradable and compostable according to the European Standard UNI EN 13432 by the Belgium Certification Institute Vinçotte, which releases the logo OK Compost.

THE APPLICATION

After the harvest of the crops such as pepper, tomato or cucumber in the greenhouse a considerable amount of plant waste remains, which will be composted.

Cultivation products made from conventional plastics cause a problem, because they are attached to the plants and therefore difficult to remove, they represent a source of contamination for the final compost and it is expensive to remove this contamination. Biodegradable and compostable products are a low environmental impact solution for this problem because they will fully biodegrade and compost together with the plant waste (see picture on the side).

Comparison of waste production (plastic waste) at the end of the cultivation of bell pepper under greenhouse



BATO PLASTICS B.V.

is an international supplier of plastic moulding products. With its modern machinery Bato Plastics is able to operate within 3 divisions:

- plastic products for the horticulture;
- custom moulding;
- packaging.

Bato's Plastics's Horticultural Products division produces specifically for the modern, professional grower. High quality horticultural products are distributed worldwide to professional growers for both open fields and greenhouses. Amongst others our products can be used for growing: tomatoes, cucumbers, peppers, aubergines, flowers, strawberries, other "soft fruits",

such as raspberries and raspberries. Tailor made products are produced for all kinds of purposes within its division Custom Moulding. The development, production and distribution of plastic packaging for the food industry is concentrated within the "division Packaging".

NOVAMONT SPA

was founded in 1989 as Fertec, a strategic research centre for Montedison, with the aim of integrating the great chemical tradition of Montecatini with the agro-industrial skills of the Ferruzzi Group. From the outset the company's mission was to integrate chemistry agriculture and industry, while respecting the environmental and human life.

Throughout the phases of its development, this has remained the unwavering objective of NOVAMONT. MATER-BI is the first family of biodegradable plastics using vegetable components such as starches, cellulose and oils from selected non-food crops, presenting the chemical structure generated by natural photosynthesis. MATER-BI is an answer to the worsening environmental problems of recent decades. MATER-BI granules are suitable for use in the most common plastic conversion technologies creating products with properties identical to those of traditional plastics, while remaining totally biodegradable and compostable.

MATER-BI is certified as biodegradable and compostable. If disposed of in the wet waste fraction, it is converted into fertile, useful compost. www.materbi.com

