

Innovative fully biodegradable mulching films & fruit protection bags for sustainable agricultural practices



COORDINATING BENEFICIARY

AITIIP CENTRO TECNOLÓGICO

PARTNERS

- Groencreatie (Bélgium)
- EEAD-CSIC (Spain)
- PCTAD (Spain)
- Transfer LBC (Spain)
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DESCRIPTION

The “Multibiosol” project is part of the European Union’s LIFE program. The general objective of this project is to demonstrate that sustainability and efficiency of agricultural practices can be achieved by introducing an innovative, economically viable and fully biodegradable plastic that eliminates waste completely.

Conventional non-degradable polymers after single-use become plastic waste, creating a serious problem of waste management since it is time-consuming and expensive to recycle. This plastic waste is usually abandoned, incinerated or taken to a landfill. These practices have serious consequences for the environment.

Over the lifespan of the project we will aim to:

1. Eliminate waste management
2. Develop new biodegradable plastics films with a very low carbon footprint impact
3. Improve soil and crop quality

OBJECTIVE

The general objective of this project is to demonstrate that sustainability and efficiency of agricultural practices can be achieved by introducing an innovative, economically viable and fully biodegradable plastic that eliminates waste completely.

Current existing semi-intensive and intensive farming practices require the use of large quantities of mulching film and fruit protection bags (and clips to close them) since they help prevent the growth of weeds, protect crops from insects, regulate soil and produce temperature and retain water and nutrients.

Conventional non-degradable polymers after single-use become plastic waste, creating a serious problem of waste management since it is time-consuming and expensive to recycle. This plastic waste is usually abandoned, incinerated or taken to a landfill. These practices have serious consequences for the environment. Therefore, governments and farmers demand cost-efficient, environmentally responsible solutions.

As such the consortium wishes to address three specific objectives:

- 1. Elimination of waste management:** Our biodegradable plastics will break down naturally on land (with OK biodegradable SOIL certification) so removal and transportation of the waste will no longer be needed. Costs of management for farmers/growers and the environmental problems associated with landfills and incineration will be eradicated.
- 2. Development of new biodegradable plastics films with a very low carbon footprint impact:** Conventional agricultural plastic films have an enormous environmental impact in terms of CO₂ emissions during their life-cycle. We will significantly reduce this impact, since our biodegradable polymers and additives will be made from renewable raw materials that are not petro-based and do not compete in food markets. Also, biomass for these biodegradable plastics will come from trees and crops which extract CO₂ from the atmosphere as they grow.
- 3. Improvement of soil and product quality:** Conventional agricultural films present toxic components and contaminate the soil in a number of ways. Multibiosol bioplastics will not only avoid these harmful components, they also will add value through Oligo Elements (trace minerals as natural fertilizers) and micro-perforation functionalities that contribute to agriculture à la carte and help improve the health of the soil and the quality of the final product.

INDUSTRIES

- Film producers for agricultura and/or other sectors.
- Farmers.

MORE INFORMATION

<http://multibiosol.eu/>

