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For more information, please visit the project website: www.greenfoodec.eu



Development of novel and
advanced decontamination
sustainable technologies
for the production
of high quality
dried herbs and spices



GreenFooDec





GreenFooDec

GREENFOODEC Project. What is it?

GREENFOODEC is a Project funded by the European Commission under the FP7, program "Research for the benefit of SME Associations".

Project objectives

GREENFOODEC will set up novel and advanced decontamination technologies, overcoming existing limitations for high quality preservation, mycotoxins and microbial decontamination of herbs & spices.

Benefits. Who are the main beneficiaries?

- **Herbs & spices producers.** They will be able to increase the quality of their products and to improve their position in the market.
- **End-users of herbs & spices (dairy and meats products producers, etc).** They will enhance the shelf-life of their products which will need milder pasteurisation treatments.
- **Other food sectors (nuts, seeds, etc).** The development of these technologies could be extended to other sectors for similar purposes.
- **Equipment suppliers.** They will develop new equipments and have advantages for marketing their products.

Who will transfer the results?

Associations have a main role and will act as intermediaries/transfers of science and technology in order to guarantee a successful knowledge transfer from the R&D centres towards the companies of this sector.

Current situation. Problem to be solved.

Microorganisms present in dried herbs & spices cannot grow or multiply due to low water activity of herbs & spices but they can still be viable and retain their potential to multiply when herbs & spices are incorporated into a food matrix with high aw.

Different sanitation methods have been developed for the decontamination of herbs & spices such as irradiation, fumigation with ethylene oxide and steam treatment. Weak points of current decontamination technologies are basically three: poor consumer acceptance; use of toxic substances and modifications of the sensorial and physicochemical characteristics of the treated products.

This situation triggers the **search for alternative, innovative, equally effective treatments to further improve the final products quality.**

Research. Which technologies will be studied?

Different innovative alternative technologies will be studied in the project:

- **High pressure CO₂+ultrasound** (ainia).
- **Cold plasma** (ATB)
- Electromagnetic energy: **microwave** and **infrared heating** (SIK).

