

Sustainability and productivity of organic mountain horticulture: potential applications of high-intensity electrical impulses and magnetism in irrigation water

Summary

This innovative project aims to reverse the trend of producing food with a decrease in the mineral aspect of the nutrient density noted in various scientific studies. And at the same time, the project aims at reversing the trend of low competitiveness and the abandonment of mountain farms through the collaborative management and implementation of innovative processes and products in their production systems.

The innovation is based on the application of theoretical and technological principles related to the improvement of the soil and the concept of the ideal soil, and electromimetics, in other words biomimetics based on the electrical aspect of nature (natural electromagnetic impulses and electromagnetism in irrigation water).

Objectives

- To recover mineral nutrient density of food.
- To increase net productivity.
- To improve product's shelf life, conservation and organoleptic qualities.
- To develop an efficient agro-ecological model.
- To reduce chemical treatments to tackle pests and diseases.
- To reduce post-harvest waste thanks to lengthening shelf life.
- To use the energy invested in production efficiently.
- To improve water management.
- To develop technologies applied to low-cost agriculture.

Conclusions

The implementation of the pilot project will allow the quality of the farming soil to be recovered and help obtain crops and food with mineral nutrient densities very different from those of other food currently found on the market.

The implementation of technology should provide added value to high-quality agricultural products and improve the economic competitiveness of farms with low levels of expertise and applied technology in their production processes. It will also improve water and energy management and reduce the cost of pests and diseases treatments. The crops will be healthier and more vigorous.

Therefore, the operational group will be able to meet the exposed challenges and it is considered to be appropriate to implement the innovative project. The suitability of the stakeholders who make up the operational groups should be highlighted.

Companies that have the technology and expertise required to carry out innovation in the soil and water phase have been identified. The research centre has been identified that will validate and provide expertise and added value during the pilot project of the food products obtained from Biovibrant Food.

Operational Group Leader

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Tipologia d'entitat:
Empresa tecnològica

Keyword-category

Agricultural production system

Territorial scope

Province

Lleida

County

Cerdanya

Project dissemination *(publications, seminars, multimedia...)*

Es portaran a terme jornades de presentació a productors i a col·lectius que puguin tenir un interès potencial en la implementació de la tecnologia innovadora en els seus processos productius.

Project website

Other project information

Project period

Starting date (month-year): Març 2017
End date (month-year): Setembre 2017
Project status: *Finalised*

Approved budget

Total budget:	28.370,00 €
<i>Funding source DARP:</i>	11.319,63 €
<i>Funding source EU:</i>	8.539,37 €
<i>Own funds:</i>	8.511,00 €

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Ordre ARP/96/2016, de 27 d'abril, per la qual s'aproven les bases reguladores dels ajuts a la cooperació per a la innovació a través del foment de la creació de grups operatius de l'Associació Europea per a la Innovació en matèria de productivitat i sostenibilitat agrícoles i la realització de projectes pilot innovadors per part d'aquests grups (operació 16.01.01), i es convoquen els corresponents a 2016.

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