

Technological improvements in the cultivation and postharvest of Catalan hanging tomatoes (“tomàquet de penjar”)

Summary

The main objective of the present project is to provide technological improvements for producers of Catalan hanging tomatoes (“tomàquet de penjar”) in Catalonia, in order to increase their competitiveness.

Objectives

To implement new technologies in order to promote the profitability of local Catalan hanging tomato production by:

- using low-cost greenhouses to expand the production cycle and increase the quality of the obtained product,
- adjusting water use to reduce consumption during cultivation, and
- using technology to postharvest practices in storage chambers to adapt it to the Catalan hanging tomato physiology.

Description of project activities

- (a) Improve infrastructure and cultivation practices of Catalan hanging tomatoes so as to extend the production season in Catalonia and improve the sensory and visual quality of the product.
- (b) Assess different cultivation cycles (early, mid- and late-season cultivation) under low-cost protective structures in order to extend the selling period of the local product (June to November).
- (c) Improve Catalan hanging tomato postharvest conservation conditions in order to guarantee a product of the highest quality and to extend the storage and selling periods.
- (d) Identify pathogens that cause putrefaction of the fruit during postharvest. Identify cultural practices that result in a reduced pathogen content during postharvest.
- (e) Optimise water and fertiliser consumption during cultivation in order to improve environmental efficiency.
- (f) Evaluate the effectiveness of using beneficial insects to reduce the use of phytosanitary products, improving the environmental quality of the product.
- (g) Transfer the knowledge and new technologies obtained to the productive sector throughout the project so that the research may be practically applied at horticultural farms.

Expected results and practical recommendations

- Improved competitiveness of local Catalan hanging tomato production.
- Extension of the Catalan hanging tomato harvest season in Catalonia.
- Increased yield and quality of tomatoes produced in polytunnels.
- Creation of a Catalan hanging tomato postharvest management manual.
- Adaptation of storage infrastructures so that they provide optimum conditions for the preservation of Catalan hanging tomatoes.
- Extension of the selling period for Catalan hanging tomatoes in Catalonia.
- Reduction of the energy consumption associated with Catalan hanging tomato preservation.
- Creation of a Catalan hanging tomato irrigation manual.

- Reduction of water consumption during Catalan hanging tomato production.
- Reduction of phytosanitary product use.
- Adaptation of production systems in order to reduce the pathogen content of fruit.
- Identification of pathogens responsible for postharvest losses.
- Well-designed biological control strategies for the reduction of fruit pathogen content at the time of harvest.
- Application of results on a commercial scale.
- Dissemination of results throughout the productive sector as well as to the general public.

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Keyword-category

Agricultural production system
Plant production and horticulture

Territorial scope**Province**

Barcelona

County

Selva
Maresme

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

Project website

<http://concadelatordera.com/>

Other project information

Project period

Starting date (month-year): Maig 2017

End date (month-year):

Project status: *Ongoing*

Approved budget

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