

Improvement of the competitiveness of chestnut farms by applying innovative product management techniques in pre- and post-harvest

Riferimenti

Tipo di progetto

Gruppo Operativo

Acronimo

MigliorCast

Tematica

Difesa da malattie e infestazioni

Information

Time frame

2019 - 2022

Durata

36 months

Partners (no.)

5

Regione

Campania

Comparto

Frutticoltura

Localizzazione

ITF31 - Caserta

ITF34 - Avellino

ITF35 - Salerno

Costo totale

€328.472,20

Fonte di finanziamento principale

Programma di sviluppo rurale

Programma di sviluppo rurale

2014IT06RDRP019: Italy - Rural Development

Programme (Regional) - Campania

Parole chiave

Pest /disease control

Farming practice

Project status

completed



Objectives

The main objective of the project is the improvement of the pre- and post-harvest treatment techniques of the chestnut product in order to improve its quality and shelf life. The aim is to implement innovative methodologies to reduce the loss of product in conservation. These innovative techniques will be sustainable both from an environmental and economic point of view. It starts from the idea of designing new strategies for the integrated control of pathogens to disadvantage their development and penetration into the fruit already in the field, producing a better product from a qualitative point of view and therefore easier to treat in the subsequent post-harvest phases. For the reduction of the fungal activity *Gnomoniopsis castaneae*, the main causative agent of the internal rot of the fruit, activities will be implemented that involve the use of microorganisms and resistance inducers already contemplated in biological control.

Activities

In the post-harvest phase, activities aimed at transferring methodologies will be provided through:

- Innovative sanitization systems for the freshly harvested product that use gas (carbon dioxide, argon, methyl salicylate) to replace or help the normal methods of curing;
- Introduction of sensor / biomarker systems to evaluate the state of conservation / deterioration of the product;
- Treatment systems that use microorganisms and / or enzymes produced by them;
- Integrated chemical-physical treatment system.

Miglioramento della competitività delle aziende castanicole mediante applicazione di tecniche innovative di gestione del prodotto in pre- e post-raccolta

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<https://www.innovarurale.it/pei-agri/gruppi-operativi/bancadati-go-pei/miglioramento-della-competitivita-delle-aziende>

Context

The chestnut production chain of Campania plays a central role in the fruit sector: over 6500 farms (Source ISTAT 2010; AGEA 2016 data) with about 15,000 hectares of orchards. The importance of the chestnut supply chain is not only linked to the productive and economic potential but also to the environmental and hydrogeological protection role it plays in mountain and foothill environments. The phytopathological crisis caused by the chestnut gallogenetic cinipid and the climatic trends that in the last 10 years have caused damage to the PLV of several million euros. The need to innovate the "curing" techniques to enhance the organoleptic qualities of the chestnut and to favor a better shelf-life represents the fulcrum of the activities to be implemented. The fruits in recent years have presented old and new problems: on the one hand cidie and balanini and on the other a fungal attack that in the last 3-5 years has strongly weakened the qualitative image of the product among consumers. In fact, internal rot develops in post-harvesting, in some cases affecting more than 40% of production. There are some key factors behind this: the plant is the healthy carrier of some fungal strains; the current techniques used in collection and in post-harvest management favor the spread and contamination of rotting (curing in water, management in wooden boxes, unsterilized jute bags, late harvest from the ground, etc.). There is a need to transfer methods and technologies that can stem this problem.

Partenariato

Role	Azienda	Address	Telephone	E-mail
Leader	Società Cooperativa Agricola Castagne di Montella	C.da Sottomonticchio 1 83048 Montella AV Italy	082761401	info@castagnedimontella.it
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Partner	Società Cooperativa Acerno Frutta Pacifico Michele	Via Giustino Fortunato 1 84042 Acerno SA Italy	3337597763	pacificoalfredo74@gmail.com
Partner	Università degli studi di Salerno - Dipartimento di Ingegneria Industriale	Via Giovanni Paolo II, 132 84084 Fisciano SA Italy	089 966003	dirgen@unisa.it

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Role	Azienda	Address	Telephone	E-mail
Partner	CNR-DiSBA - Dipartimento di Scienze Bio Agroalimentari - Roma	Piazzale Aldo Moro n. 7 00185 Roma RM Italy	064993780	direttore.disba@cnr.it

Pratiche abstract

Description

The innovations aim to:

- Improve the quality of the product by at least 20% in the pre-harvest phase by implementing a protocol that envisages the use of micro-organisms and bioactive substances capable of counteracting problems linked to rotting;
- New treatment protocols that use chemical-physical and / or gas to reduce fruit rot by 30%;
- 20% shelf-life improvement;
- Introduction of a sensor / diagnostic system applied to the recognition of fungal attacks on the chestnut tree.

Results

Link utili

Titolo/Descrizione	Url	Tipologia
Pagina Facebook del progetto	https://www.facebook.com/p/Progetto-Migliorcast-100063573132537/?paipv=0&eav=Af...	Link ad altri siti che ospitano informazioni del progetto