FOREST4EU

ITHub 2 - Forest Adaptation to climate change

FOREST4EU partner: UNIFI
OG: CASTANI-CO
OG's country: Italy
Type of Innovation: Process

Chestnut forests management for quality products and promote C sequestration

Introduction

CASTANI-CO promotes chestnut groves as a semi-natural system suited to carbon sequestration and as a productive source of quality food (nutritional and environmental).

Chestnut tree cultivation is typical of the hilly-mountainous environment of Emilia-Romagna with deep roots in the culture and tradition of these territories. It plays an important role in climate change mitigation, thanks to the high environmental sustainability of the agro-ecosystem characterised by low greenhouse gas emissions (low use of agricultural machinery), carbon sequestration in soil and plants, high environmental biodiversity, thus a good impact within climate change mitigation strategies. Similarly to the Italian situation, it is undergoing a slow and constant crisis caused by the presence of pests and the recurrence of unfavourable weather events that, over time, have led to the abandonment of cultivation.

Despite the sharp contraction of cultivated areas and the market, chestnut producers in Emilia-Romagna are very active and have organised themselves into specific consortia of producers committed to enhancing chestnut cultivation, cultivation techniques and specific local varieties as well as promoting the production area.

The main objective of the project was the monitoring of the carbon footprint of the chestnut grove, which involves assessing the organic carbon sequestered in soils and plants, depending on the soil environment and also on different management practices of the chestnut grove. Monitoring was carried out through field observations, soil studies, sampling and chemical analyses in the chestnut groves of partner companies located in different soil environments. Finally, 'guidelines for the best management of fruit chestnut groves to obtain a quality product and favour carbon sequestration' were identified and shared.

CASTANI-CO pointed out how traditional chestnut groves, thanks to their firm soils that are never tilled, can contribute to the storage of carbon in soils and plants. The valorisation of traditional chestnut groves cannot neglect the knowledge and traditions transmitted from generation to generation, which are indispensable for the preservation of the hill and mountain landscape of Emilia Romagna. From the 'voice' of the chestnut growers, custodians of the territory, emerged the need for training activities and suitable tools to improve the management and recovery of chestnut groves, as well as processing and marketing opportunities.

Lessons learned

CASTANI-CO pointed out how traditional chestnut groves, thanks to their firm soils that are never tilled, can contribute to the storage of carbon in soils and plants. The valorisation of traditional chestnut groves cannot neglect the knowledge and traditions transmitted from generation to generation, which are indispensable for the preservation of the hill and mountain landscape of Emilia Romagna. From the 'voice' of the chestnut growers, custodians of the territory, emerged the need for training activities and suitable tools to improve the management and recovery of chestnut groves, as well as processing and marketing opportunities.

For further information contact

Carla Paola Scotti, Project Coordinator, Italy, email: scotti@pedologia.net

Livia Antisari, Professor, University of Bologna, Italy, email: livia.vittori@unibo.it

Francesca Giannetti, Assistant Professor, University of Florence, Italy, e-mail: francesca.giannetti@unifi.it

The information presented in this factsheet was developed by the FOREST4EU partner, drawing on the innovations and knowledge generated by the indicated operational group with their explicit authorization.

Further information

https://ec.europa.eu/eip/agriculture/en/find-connect/projects/castani-co-%E2%80%9Cil-sequestro-di-carbonio-nel-sistema.html

Funded by the European Union

Funded by the European Union (Grant n. 101086216). Views and opinions expressed are however those of the authors only and do not necessarily reflect those of the European Union or REA. Neither the European Union nor the granting authority can be held responsible for them.

CASTANI-CO

FOREST4EU

FOREST4EU Project

FOREST4EU Project

info@forest4eu.eu

Website