



MAIN CHALLENGE/ OBJECTIVES

DSSCAST addresses the need to make chestnut orchards more resilient to drought, heavy rainfall, fungal pathogens, and declining fruit quality. Its objective is to shift from reactive management to preventive management based on field data.

MAIN RESULTS/ OUTCOMES

The project has successfully applied a combination of different systems such as Environmental monitoring systems, water sensors, protocols for fungi, mycotoxins and contaminants, DSS modules for irrigation and pruning, and demonstration activities to transfer the results to farmers.

PRACTICAL IMPLICATIONS / RECOMMENDATIONS

The central theme is the practical use of data to address climate change in chestnut cultivation. Operators can use the project results to identify the most critical areas of the chestnut orchard, monitor soil moisture, assess the risk of fungal infections, and plan pruning, emergency irrigation, and fruit sampling.

The main recommendation is not to install sensors without a working method: first define the farm's objectives, then choose the parameters to monitor, and finally set thresholds and practical actions. A DSS is useful if it provides clear guidance, such as "do not irrigate," "monitor," or "intervene within a useful time window." For farmers, the benefit is more orderly and documented management, with less water waste, better plant protection prevention, and a greater ability to enhance a healthy, high-quality product. For the territory, the benefits also include soil protection, reduced land degradation, and the preservation of chestnut cultivation in inland areas.



GEOGRAPHICAL LOCATION

Forino, Montoro e Montella, provincia di Avellino, Campania, Italia.

FURTHER INFORMATION

The project implemented monitoring activities, technical protocols, demonstration days, seminars, and workshops.
Project link: <https://dsscast.com/>

