

MONITORA – ADVANCED MONITORING SERVICE FOR SUSTAINABLE IRRIGATION AND FERTILIZATION, AND INTEGRATED PEST MANAGEMENT FOR OPEN-FIELD VEGETABLE CROPS (POTATOES, TOMATOES, AND ONIONS).

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TECHCOACH
Bringing smart farming closer to farmers

MAIN CHALLENGE/ OBJECTIVES

Using available technology and sensors in an easy, reliable, and economical manner to support the application of sustainable agricultural techniques, thereby reducing the qualitative and quantitative variability of production. Improving the quality standards of open-field vegetables by reducing crop stress and optimizing inputs.

MAIN RESULTS/ OUTCOMES

Overall analysis of irrigation management using the DSS Monitora revealed substantial water savings in almost all the production cases examined. The Monitora alert system generally confirmed its validity as a tool for predicting the infectious periods of *P. destructor* and agents of alternariosis and stemphyliosis.

PRACTICAL IMPLICATIONS / RECOMMENDATIONS

The platform developed as part of the Monitora project has been useful for farmers and technicians in defining the timing of defense interventions against pathogens, allowing for rational and targeted use of crop protection products. Regarding irrigation, taking a standard drip irrigation system as a reference, farmers can achieve a potential average water saving, estimated from the agronomic cases studied in the project (approximately 90 mm on average for all considered crops), equivalent to about 68 hours of irrigation.

This translates into a reduction of the average energy cost (approximately 15 euros/hour) for the system's operation by 1000 euros and, at the same time, a potential reduction in CO2 equivalent emissions of 530 kg. Monitora can also be implemented in other regions/countries. To do this, it is essential to characterize the location: specific weather, soil, and agronomic data. Monitora is already being followed up in a project funded by the Rural Development Complement of the Piedmont Region - Intervention SRH05, called the Rigenera Project.

GEOGRAPHICAL LOCATION

All project partners, farms, and activities were carried out in the Piedmont region (Italy), specifically in the provinces of Alessandria and Cuneo.



FURTHER INFORMATION

<https://www.progettomonitora.it/>



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