What's REGAVID?

In the current conditions of climate change, even in temperate areas such as Galicia where there is a downward trend in rainfall, the development of a sustainable irrigation strategy that facilitates the efficient use of irrigation water is crucial.

REGAVID is an Operational Group that seeks to implement a tool that allows modeling the real water needs of the crop based on data from soil moisture sensors, weather stations and weather forecasts for the area and being able to predict water future requirements irrigation.

To whom is REGAVID aimed to?

- Wineries and cooperatives
- Regulatory Councils of Denomination of Origin
- Manufacturers of machinery and technologies related to the sector
- Private winegrowers
- Public Administrations related to agriculture, the environment and/or rural development
- Research centers and general public

Regavid

Do you want to know more about REGAVID?

To learn more about the **REGAVID** pilot project, you can send an email to **debora@monet-ti.com** or **lloret@feuga.es** or call us at **+34 659 101 888** or **+34 681 042 375.**

Fondo Europeo Agrícola de Desenvolvemento Rural: Europa inviste no rural

GOBIERNO DE ESPAÑA MINISTERIO DE AGRICULTURA, PESCA Y ALIMENTACIÓN

AXENCIA GALEGA DA CALIDADE ALIMENTARIA

Xacobeo 21·22

Regavid

Irrigation management tool to assess vineyard current hydric needs and predicts future ones

Total budget: €180.000,00 **Total grant: €180.000,00** **Co-financing EU: 75% FEADER**

REGAVID is financed by aid for the execution of operational groups of the European Innovation Association (AEI), 75% co-financed by the European Agricultural Fund for Rural Development (FEADER) within the framework of the Rural Development Program (PDR) of Galicia 2014-2020. Total budget €180,000.00 (100% subsidized). The Department of Rural Environment is the body of the Galician Administration which is responsible for proposing and executing the general guidelines in the rural area, and encompasses the competences in matters of agriculture, livestock, rural development and regional planning, rural structures, agri-food industries and forestry, mountains, prevention and defense of forest fires.

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Objectives of the project

The general objective of this project is the development of an irrigation management tool that allows determining the current water needs of the vineyard and predict future water needs.

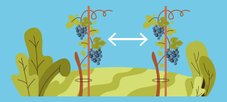
Expected results of the project

The project will obtain a model that will allow to characterize the answer of the sensors based on the different values of water content in soil and effectively adjust the cultivation coefficient (k_c) from field measurements. These results will allow to develop a vineyard hydric necessities model.

Furthermore, a 7 days prediction model of the reference evapotranspiration (ET_o) and of the cultivation coefficient (k_c) will be developed, allowing the calculation of future hydric requirements of the vineyard.

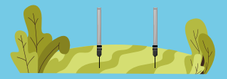
REGAVID activities

1. Definition of study areas (actuation units' size and number of sensors to install), zoning with apparent electrical conductive map and soil analysis.



2. Installation of equipment (soil sounding lines, TDR checkpoints and control counters of the applied water volume) and irrigation system evaluation.

3. Definition of treatments (dry land areas, frequent irrigation areas of the winery, irrigation area identified by the tool developed).



4. Measurements of soil water content with TDR sounding lines.

5. Field controls (charge equilibrium, phenology and agronomic practices monitoring, vegetal canopy characterization, determination of the exposed foliar surface, maturation tracking, production evaluation and grape juice analysis).

6. Development of models (correlation of sensors and TDR measurements, cultivation coefficient adjustment, current hydric needs modelling, 7-days reference evapotranspiration and cultivation coefficient prediction models) and development of an irrigation management tool.

7. Execution of the dissemination plan (transferring the results to the sectors and carrying out dissemination actions).

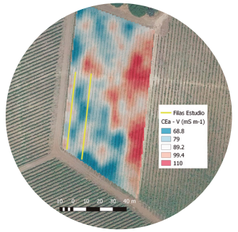
Whose REGAVID comprised by?

REGAVID is comprised by a multidisciplinary team of Galician entities made up of specialists in viticulture, hydraulics and hydrology, and technologies applied to the primary sector. In the team, led by the company **Monet Technology and Innovation**, the **wine sector (Martín Códax)**, a **public university (University of Santiago de Compostela, through the PROEPLA research group** (Projects and Planning)), and a **technological innovation agent (Fundación Empresa – Universidad Gallega (FEUGA))** are represented.

Monet viticultura

Martín Códax

USC UNIVERSIDADE DE SANTIAGO DE COMPOSTELA



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