

Regavid

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

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.



Objectives

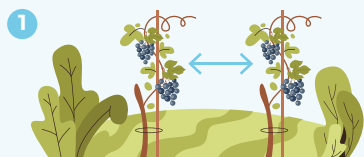
The general objective of this project is the development of an irrigation **management tool** that allows determining the current water needs of the vineyard and predict future water needs.



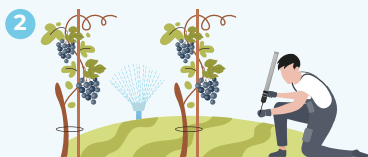
Results

A model will be obtained that will allow characterizing the sensor response based on different soil moisture content values and performing an effective adjustment of the crop coefficient. Additionally, prediction models for evapotranspiration (ET_c) and crop coefficient (K_c) will be obtained to determine the future water requirements of the vineyard.

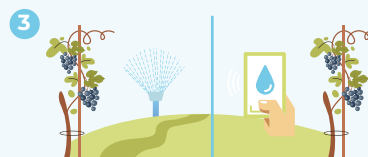
Activities



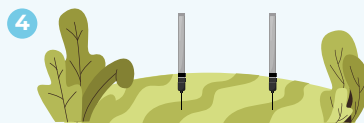
1 Definition of study areas (actuation units' size and number of sensors to install), zoning with apparent electrical conductive map and soil analysis.



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?

feuga
fundación
empresa
universidad
gallega

USC
UNIVERSIDADE
DE SANTIAGO
DE COMPOSTELA

Monet
viticultura

Martín Códax