Service ID S00315

Location Spain

Testing the recalibration of irrigation model through soil moisture sampl

Provider service

University of Cordoba (UCO)

Link to content

https://agrifoodtef.eu/catalogue-of-services/testing-recalibration-irrigation-model-through-soil-moisture-sample-values

Type of Sector

Arable farming, Horticulture, Tree Crops

Accepted type of products

Data, Physical system, Software or AI model

Type of service

Collection of test data, Data analysis, Performance evaluation, Test design, Test execution, Test setup

Description

Irrigation models are validated using simulations based on various data sources, such as climatic and crop data. This ensures accurate water distribution, reduces waste, and enhances crop yields across diverse conditions. It includes physicochemical parameters of the soil, and variable distribution of water and supplies. Observations are systematic and cover different conditions and crops to verify model accuracy and the effectiveness of site-specific input distribution.

How can the service help you

The validation of the service, developed by the customer, addresses the critical needs for optimised water distribution and improved agricultural efficiency. Before using this service, companies may struggle with inconsistent irrigation models, leading to either over- or under-irrigation, which can negatively impact crop health and yield. The service ensures that water and inputs are distributed accurately based on real-time conditions, crop types, and soil properties. After implementing the service, companies benefit from an improved system accuracy, and enhanced productivity through tailored water and nutrient application across different crops and conditions.

How the service will be delivered

The service will be customised according to customer needs (model, pivot, crop, season…).

Service customisation

The service is conducted at the Rabanales Experimental Farm facilities in Rabanales. It is tailored to align with the crop cycle being evaluated, as field sampling and irrigation are necessary to assess efficiency. The crop must be one of those grown in the plots where the irrigation system under evaluation is installed. The customer is responsible for providing the mathematical irrigation model. Upon completion, the customer will receive a detailed final report outlining the results of the service.