UAV-based remote sensing for supporting precision agriculture

Provider service

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Link to content

https://agrifoodtef.eu/catalogue-of-services/uav-based-remote-sensing-supporting-precision-agriculture

Type of Sector

Arable farming, Food processing, Greenhouse, Horticulture

Accepted type of products

Data, Design / Documentation, Software or AI model

Type of service

Certification, Collection of test data, Conformity assessment, Data analysis, Performance evaluation, Test execution

Description

The service specialises in designing test models of irrigation strategies using UAV thermal infrared imagery combined with remote sensing technology. These innovative models ensure accurate, metrologically valid monitoring of various crops and vegetation through image acquisition at different wavelengths. They provide critical insights for optimising irrigation practices by analysing the effects of factors like soil moisture, crop type, and weather conditions on plant health and water requirements.

How can the service help you

The service can help you by providing advanced test models of irrigation strategies based on UAV thermal infrared imagery and remote sensing technology. This enables you to monitor crop health and water needs with high accuracy, optimising irrigation practices by considering factors like soil moisture, crop type, and weather conditions. This approach helps improve water efficiency and ensures healthier plants.

How the service will be delivered

Tailored Irrigation Strategies: The service customises test models for irrigation strategies based on the specific needs of the crops, soil conditions, and local weather patterns.

Each model is designed to optimise water usage and address the unique challenges of the agricultural environment.

Flexible Monitoring Parameters: Customisation can take into account a variety of vegetation parameters through UAV thermal infrared imagery, enabling the service to focus on the specific factors that most impact your crops, such as soil moisture or plant health.

Adaptation to Local Conditions: The service can be adjusted to suit different geographical areas and agricultural practices, taking into account regional climate variations, crop types, and the specific water requirements of your operations.

Service customisation

The service will be delivered by designing an appropriate test model for the specific irrigation strategy leveraging the use of UAVs equipped with thermal infrared imagery and remote sensing technology to capture detailed data on crop and vegetation health.