

Service ID

S00270

Location

Spain



Lab testing and validation of non-destructive spectral devices focused on

Provider service

University of Cordoba

Link to content<https://agrifoodtef.eu/services/lab-testing-and-validation-non-destructive-spectral-devices-focused-agri-food-products>**Type of Sector**

Food processing, Horticulture, Tree Crops, Viticulture

Accepted type of products

Design / Documentation, Physical system

Type of service

Collection of test data, Conformity assessment, People training, Performance evaluation, Test execution, Test setup

Description

This service supports companies that are developing non-destructive spectral (NDS) instrumentation for agri-food applications, providing validation studies focused on spectral repeatability, signal-to-noise ratio, and quality assessment. Using a well-equipped sensor lab, the service includes comparisons with commercially available instruments and access to a referenced agri-food sample bank. By conducting repeatability and performance assessments, clients gain insights into device robustness and potential design improvements.

How can the service help you

This service assists device manufacturers in refining their NDS instruments by offering a comprehensive evaluation of signal stability and quality in varying environmental conditions. It provides data-driven insights to support performance optimisation, contributing to the development of reliable and competitive spectral devices for the agri-food sector, which can enhance the marketability of their spectral technology.

How the service will be delivered

The service is conducted in a lab facility in Spain, where devices provided by the customer under development are tested for spectral accuracy and repeatability. Deliverables include performance reports, comparative assessments with commercial devices, and recommendations for performance enhancements. Clients may also request access to a sample bank for targeted evaluation studies.

Service customisation

Customisation options include selecting specific types of agri-food samples or environmental conditions for testing, as well as tailored performance metrics. Additional testing of signal-to-noise ratio can be conducted upon request.