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Collective management of crops at the service of environmental programs related to the use and quality of water (LIFE AGROGESTOR)

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In the framework of the environmental EU LIFE program, Agrogestor project (www.agrogestor.es) aims to develop an online platform that will support collective management of crop information. This platform is designed to provide economic and environmental sustainability indicators for field crops management and the traceability of agricultural products and activities. It will allow the evaluation of group management tools and strategies to achieve environmental objectives by indicators, including controlled deficit irrigation and irrigation group networks governance.

The current version of the platform offers Decision Support Tools (DST) for the management of extensive crops, including fertilization and irrigation scheduling, crop cultivar selection, control of diseases and sustainability indicators. Remote sensing data are integrated into the irrigation DST to optimize the use of water. Daily meteorological information, weekly forecasts, provided by AEMET, and crop coefficients derived from Landsat-8 and Sentinel-2 satellites are supplied to the farmers and irrigation managers -together with classical tabulated FAO56 coefficients- as an alternative choice to compute the crop water requirements and schedule the irrigation. Plot images to detect anomalies in crop growth and nitrogen application rates are other remote sensing-based products offered by this platform. This work represents a joint effort of research and technology transfer groups to integrate remote sensing data in daily farmer's decisions for crop management.