

## SoildiverAgro project

Adoption of new management practices to increase crop production and quality



### THE WHAT AND WHY

## Barriers and challenges for the application of sustainable farming practices in wheat production under Mediterranean conditions.

Wheat (*Triticum aestivum ssp. aestivum*, *T. turgidum ssp. durum*) is the most important food grain source for humans being the most produced crop, followed by rice, maize and potatoes, the development of European agriculture is being restricted by environmental threats linked with conventional farming, intensive tillage and monocropping production. To preserve wheat production and prevent soil depletion, sustainable agricultural practices should be implemented by farmers and the rest of society. Generally, wheat cultivation in Mediterranean area is highly intense in machinery and pesticides use, with low or nil fertilization and absence of rotations, with use of fallow periods to avoid soil exhaustion by cropping. Though, there is still lack of information about how the management sustainable agricultural practices can enhance the resilience of

their farms and increase availability of nutrients and resistance to pests/diseases while decreasing the use of external inputs but maintaining the same yields. After identifying the relevant agri-environmental problems and related end-users' needs by surveys, the most important barriers that stakeholders perceive are the lack of farmers' knowledge regarding the real effectiveness of practices, the lack of tradition among farmers and the need to have adequate technical advice due to the complexity of the implementation of some sustainable farming practices. In some cases, stakeholders are aware of the problems and challenges and, to a certain extent, of the solutions. Another positive aspect is that only a minority of stakeholders perceive more sustainable farming practices as unprofitable or difficult to implement if adequate technical advice is available.



1. Potato (*Solanum tuberosum* L.) plantation in Mediterranean South region (Spain)

### KEYWORDS

Potato production, Agricultural practices, Sustainable farming, Stakeholders' assessment, Multicriteria method (MCDM), Soil conservation.

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