## EXPLOWHEAT - Exploring durum wheat genotypes to minimize drought stress impact on grain yield and nutritional quality

Human world population is rising, and global grain production needs to increase by 70% by 2050 to provide food and feed in an equitable, healthy, and sustainable manner. This ambitious goal requires the exploitation of marginal agricultural land, with severely limiting soil mineral composition, nutrient depletion, increasing water scarcity, acidity, salinization, depletion of organic matter, and poor drainage. Climate change will superimpose on these conditions in various regions of the world, including Europe, and in particular the Mediterranean area.

Durum wheat is one of the world's most consumed cereal grains and its most important growing area is situated in the Mediterranean Basin, which produces about 60% of world production. Its importance and the great uncertainty related to the possible effects of climate change, reveal the necessity of understanding the impact of global warming for wheat productions in Mediterranean regions and to find solution to mitigate its effects.

EXPLOWHEAT ambition is to identify cultivars, and genetic combinations, of DW able to efficiently cope with limitation of natural resources by studying the dynamic mechanisms that plants are faced under field and field-like conditions at a multidisciplinary level.



## Mediterranean Net of Partners

To reach its objective, EXPLOWHEAT employs a multidisciplinary and balanced consortium of academic and non-academic institutions covering a broad range of disciplines from crop management and research, including water and nutrient uptake and assimilation, to fertilization practices, soil science, plant physiology, biochemistry, plant genomics and genetics.

## What is PRIMA - Partnership for Research and Innovation in the Mediterranean Area

Find out more here: https://prima-med.org/