“Barley ideotyping for the adaptation to heat stress in the Mediterranean basin. A bibliometric search approach ”

Agostino Fricano[1], Erica Mica[1], Raffaella Battaglia[1], Alessandro Tondelli[1], Calogero Schillaci [2], Alessia Perego [2]

1 Council for Agricultural Research and Economics, Research Centre for Genomics and Bioinformatics, Italy (agostino.fricano@crea.gov.it)
2 University of Milan, Department of Agricultural and Environmental Sciences University of Milan, Italy

SSS12.3/EOS2.4

Mon, 04 May, 10:45–12:30 | D2395

crea
Consiglio per la ricerca in agricoltura e l’analisi dell’economia agraria

UNIVERSITÀ DEGLI STUDI DI MILANO
DIPARTIMENTO DI SCIENZE AGRARIE E AMBIENTALI - PRODUZIONE, TERRITORIO, AGROENERGIA

EGU European Geosciences Union

INTRODUCTION

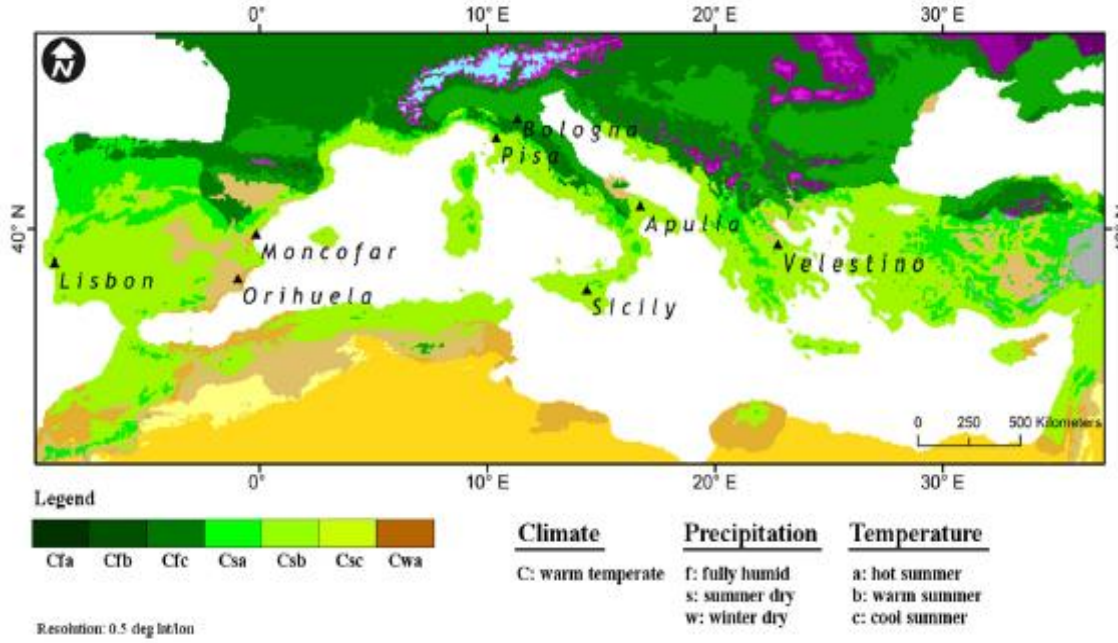
Barley is a widespread crop in the Mediterranean area and in temperate climates.

Change in climate is expected to result in more adverse conditions for the barley growth and alter land suitability in its growing regions, such as the Mediterranean basin.

GENDIBAR project (Utilization of local genetic diversity for studying barley adaptation to harsh environments and for pre-breeding; PRIMA European Funding Programme)

Laboratory and modelling activities of “in silico ideotyping” for designing new varieties and to define optimal field management practices.

In this study, a bibliometric analysis was carried out in the SCOPUS database about the identification of optimal phenotypic traits for the adaptation to harsh environments.



Pulighe et al., 2019

UNIVERSITÀ DEGLI STUDI DI MILANO
DIPARTIMENTO DI SCIENZE AGRARIE E AMBIENTALI - PRODUZIONE, TERRITORIO, AGROENERGIA

crea
Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria

EGU European Geosciences Union

METHODS

Scopus®

The initial query was (barley AND climate AND adaptation);

1 **Around 200 articles found**

By adding (barley AND ideotyping OR barley AND phenotyping),

2 **450 records**

The most comprehensive search was achieved by adding another OR condition (Barley AND future climate OR climate change)

3 **Around 1000 records**

UNIVERSITÀ DEGLI STUDI DI MILANO
DIPARTIMENTO DI SCIENZE AGRARIE E AMBIENTALI - PRODUZIONE, TERRITORIO, AGROENERGIA

crea
Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria

EGU European Geosciences Union

RESULTS

- The first search yielded a high N of records
- A further analysis showed that less than 5% of the records addresses the topic (time-consuming manual screening of the abstracts).
- The second query represents a compromise between the simplest query (barley AND climate AND adaptation) and the last query made by three conditions bonded together.
- This literature search approach highlighted limited results of manipulative experiments and modelling studies → knowledge gap filling