How wheat’s wild cousins could help increase its genetic diversity

Durum wheat is the tenth most important food crop in the world.

…

Yet yields have reached a plateau in recent years. As the world’s population grows, the production of durum wheat will need to increase. And as the climate changes, durum wheat will need to become more resilient. That’s a tall order for a crop with limited genetic variability.

A project initiated in 2014 seeks to re-establish the genetic variability of durum wheat by introducing beneficial traits obtained from wheat’s wild cousins. Crop wild relatives (CWR) are known as a valuable source of genetic variability that can provide a wide range of beneficial genes possessing different traits of agronomic importance. The durum wheat pre-breeding project is one of numerous activities in the 10-year Crop Wild Relatives project, which is supported by the Government of Norway.

…

Ian and Julie King, Director and Research Director of the Nottingham/BBSRC Wheat Research Centre at The University of Nottingham in the United Kingdom, are leading a team that is successfully transferring genetic variation from wild relatives into bread wheat. The experience they have gained in their bread wheat project made them ideally suited to lead the durum wheat pre-breeding project. The team has now embarked on a project to develop durum varieties with enhanced genetic variability and adaptability to a wide range of stresses.

Read full, original post: Durum wheat pre-breeding for food security