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“NOBALwheat – breeding for sustainable food system of the Nordic Baltic Region”



Project number: LT08-1-ŠMSM-K01-007
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Project promoter:
 Lithuanian Research Centre for Agriculture and Forestry
 Principal investigator: dr. Gintaras Brazauskas

Project partner(s):
 Norwegian University of Life Sciences (NMBU)
 Institute of Agricultural Resources and Economics (AREI)
 Estonian Crop Research Institute (ETKI)
 University of Tartu (UTARTU)

The NOBALwheat aims to establish a spring wheat collection originating from Baltic states and Norway and test its genetic plasticity and adaptation capacity to the climate change for different countries within three years by phenotyping and genotyping it. Superior genotypes will be directly introduced into breeding programs for the development of disease - and abiotic stress-resistant varieties. In combination with genotypic data, NOBALwheat collection will provide highly valuable material for use as a training population and this will be a starting point to introduce genomic selection into breeding programs across Baltic countries. Setting up low-cost high throughput phenotyping platforms and introducing these into breeding programs across the Baltic countries will increase food security in the Nordic-Baltic region. Identification of vegetation indices and morphological traits for wheat plant responses to biotic and abiotic stresses, will allow to utilize it in precision agriculture with the goal of optimizing returns on inputs while preserving resources. All partners will benefit from know-how and technology transfer and will make use of the climate-fit wheat varieties to secure yields and ensure sustainable food systems and will profit from the advanced field sensing technology which is an important part of digitalization in future agriculture.



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