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Plant Genetic Resources and their Exploitation in the Plant breeding for Food and Agriculture

BOOK OF ABSTRACTS

18th EUCARPIA GENETIC RESOURCES SECTION MEETING

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Poster presentations

Session 4. Plant genetic resources in context of climatic changes

<i>Winter wheat genotypes screening for climate change conditions based on the photosynthesis parameters measurement</i> Marián Brestič, Marek Živčák, Katarína Olšovská, Peter Ferus and Pavol Hauptvogel	165
<i>Xerophitic plants in Slovak flora as potential genetic resources in context of climatic changes</i> Pavol Eliáš jun., Tibor Baranec and Ivan Ikrényi	165
<i>Detection of genetic resources of Trifolium pratense with effective nodulation ability at low pH and high n level in the soil</i> Natália Faragová and Juraj Faragó	165
<i>A new method for rapid stress tolerance evaluation of crop genotypes</i> Peter Ferus, Marek Živčák, Jana Repková, Katarína Olšovská And Marián Brestič	166
<i>Can continuous no tillage application positively influenced soil communities?</i> Zuzana Lehocká and Marta Klimeková	167
<i>Soil microbial biomass and earthworms' population influenced by the different farming systems</i> Zuzana Lehocká, Marta Klimeková and Štefan Žák	167
<i>Resistance – tolerance to airborne and soilborne pathogens in European durum wheat (Triticum durum DESF.)</i> Masár Štefan, Bojnanská Katarína, Gubiš Jozef and Pastirčák Martin	168
<i>Characteristics of Tritordeum (xTritordeum Ascherson et Graebner) under central-european climatic conditions</i> Petr Martinek, Jarmila Mikulcová and Ludmila Ohnoutková	168
<i>Monitoring and estimation of plant genetic resources in ecologically dangerous zones</i> Natiga A.Nabiyeva	169
<i>Water relations as a criterion to select winter wheat genotypes for their improved drought tolerance</i> Katarína Olšovská, Marián Brestič, Marek Živčák, Jana Repková, Jana Ferencová and Elena Hunková	169
<i>Assesment of genetic variation in Ethiopian durum wheat germplasm by SSR markers</i> Enrico Porceddu, Anna Farina, Linda Mondini and Mario A. Pagnotta	170
<i>Climatic distribution of genetic Tunisian local barley resources</i> Abdellaoui Raoudha, Rouaissi Mustapha, Ben Naceur M'barek and Ben Hmida Jeannette	170
<i>Investigation and utilisation of winter wheat germplasm from dry climate countries</i> Vytautas Ruzgas and Zilvinas Liatukas	170
<i>Genetic resources from the North and environmental changes</i> Merja Veteläinen, Sergei Alexanian, Even Bratberg, Lene K. Christensen, Áslaug Helgadóttir, Lorenzo Maggioni, Marianne Philipp, Ken Richards, Outi Savolainen, Jens Weibull, Frans-Emil Wielgolaski and Stoney Wright	171

the results of field trials the most part of the tested varieties were more susceptible to leaf diseases than the local check. The Southern winter wheat varieties were of higher grain quality as compare to the West- type varieties. The greatest advantage to include the germplasm from dry climate countries in to the winter wheat breeding programme is high

grain quality. Winter hardiness is usually not a limiting factor however in our tests a positive correlation between plant height and winter resistance was found. The greatest constraint is the grain yield and susceptibility to the most wide-spread disease in wet climate, especially powdery mildew.

GENETIC RESOURCES FROM THE NORTH AND ENVIRONMENTAL CHANGES

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The anticipated climate change means new challenges for conservation and use of genetic diversity in the North. It has probably the most significant effect on the diversity of wild relatives of crops and wild species utilised. However, for plant breeding in the North it has to be considered that even with warmer climates the use of cultivars bred in the more southern latitudes will not be an option. The unsuitability of more southern varieties to the northern conditions is due to the need for adaptation to the extreme long-day conditions and special growth rhythm, as well as diverging edaphic conditions prevailing in the North.

Today, the genetic resources of the North do not receive any special attention by the genetic resources community. The established gene banks possess germplasm from the area, but since they

are usually located in the south they may not always be aware of the vulnerable nature of the genetic resources of the North.

With these aspects in mind, a workshop was organized as an ECPGR cross-cutting activity. Eleven participants representing eight countries north of the 64°N were brought together to discuss the consequences of the global climate change on plant genetic resources. The aim of the two-day workshop was to review the present state of the most northern germplasm collections, as well as climate change scenarios for the area and knowledge on genetic diversity and adaptive capacity of the most northern plant populations. Our poster shall high-light the scientific background, discussions and outcomes of the workshop.