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Triticum monococcum based genes as a source of salt tolerance in Turkish wheat genotypes

Anamika Pandey¹, Mohd Kamran Khan¹, Mehmet Hamurcu¹, Ali Topal¹, Ahmet Tamkoc¹, Sait Gezgin¹, Kamer Gulcan¹, Necdet Akgun¹, Pamela Aracena Santos¹, Hatice Suslu¹, Makbule Rumeysa Omay¹, Fatma Akin¹, Merve Inanc¹, Hasan Can¹, Zuhale Zeynep Avsaroglu¹, Noyan Eken¹, Humeyra Omay¹, Seyit Ali Kayis², Mahinur S. Akkaya³, Nermin Bilgili⁴, Selman Turker⁴ and Erdogan E. Hakki¹,

¹University of Selcuk, Faculty of Agriculture, Konya-42250, Turkey

²Karabuk University, Faculty of Medicine, Department of Biostatistics, Karabuk, Turkey

³Middle East Technical University, Department of Chemistry, Ankara, Turkey

⁴Necmettin Erbakan University, Faculty of Engineering and Architecture, Department of Food Engineering, Konya, Turkey

Worldwide, around 20% of irrigated lands are damaged by salt stress. Hence, either crop production from the non-affected land should be increased or genotypes with stress tolerance should be developed to be grown in stress-affected land. Salt stress largely effects crop yield by making the spikelets sterile, inhibiting the flowering, reducing the grain weight and leading to stunted plant growth. Saline growth environment produces phenotypical symptoms that are linked to physiological and biochemical mechanism of the plant. Wheat, an important cereal crop and chief source of energy is widely consumed in different parts of the world. Apace with the continuously increasing population, it is crucial to enhance its production to meet the current nutritional requirements. However, its production is largely restricted due to salinity stress in arid and semi-arid regions of the world. In such state, developing wheat varieties with greater salt tolerance can be a preferred strategy. Hence, in a combined classical breeding and marker assisted selection program, *Triticum monococcum* based salt tolerant genes have been transferred in Turkish bread and durum wheat genotypes. In order to identify the other genes involved in the physiological mechanism, Backcross 3 material of the program will be tested for tolerance against high levels of salinity under greenhouse growth conditions.

Biography

Erdogan Esref Hakki has completed his PhD from Middle East Technical University (Ankara), Department of Biotechnology, in 2000. He is running a Molecular Genetics Laboratory in Konya (TR) within Selcuk University, Faculty of Agriculture. His studies are mainly focussed on abiotic stresses (boron, salinity etc.) of crop plants.

eehakki@selcuk.edu.tr

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