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CHARACTERIZATION AND GENE EXPRESSION ANALYSIS OF ZINC FINGER RELATED GENES IN BREAD WHEAT (*TRITICUM AESTIVUM*)

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ABSTRACT

Salinity is one of the environmental stresses that limit crop productivity such as wheat, to avoid this problem we evaluate genotypes more tolerant to salinity stress by using relative water content (RWC), the seven wheat genotypes were treated with 2.5% NaCl, the RWC was decreased after 72h, DH3 displayed the highest RWC with 97.5%. The salinity sensitive cultivar Gimmeza9 revealed the lowest water content value with (56.8%). The first-strand cDNA synthesis was performed from RNA isolated of root NaCl-treated wheat; the specific primers were designed for *ZFP22*, *Di19A* and *STRP* genes. PCR amplifications of cDNA of four doubled-haploid bread wheat genotypes (DH1 to DH4) and three varieties (Sakha93, Sids1 and Gimmeza9) revealed the fragments with their expected sizes 182, 747 and 228 bp that gives variance in expression between genotypes.

Key words: relative water content and salinity related genes, salinity stress, *Tritium aestivum*, wheat.