



Evaluation of new bread wheat lines (*Triticum aestivum* L) under normal and water stress conditions

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Abstract: The investigation was carried out to evaluate some new bread wheat genotypes under normal and water deficit conditions. 25F6 bread wheat genotypes and one check variety (Sakha93) were grown at three different locations(1-Shebin El-kom, Menofiya; 2-Alkanater, Kalubia; and 3- Nubaria, Beheira, Egypt). Many agronomic traits were studied such as days of heading, flag leaf area(cm²), plant height(cm), number of spikes/plant, spike length (cm), 100 kernel weight (gm), grain yield/plant(gm),harvest index and biological yield/plant. The results revealed highly significant differences among the genotypes for all characters indicating the presence of considerable variabilities among them. Genotypes 10,11,12,13 and 24 were early flowering at all locations under normal and water stress conditions. Genotypes 7,2,1,9 and 3 gave the highest performance for no. of spikes/plant. The best selected genotypes for grain yield were 5, 12, 18, 20, 21 and 22 which exhibited high grain yield under spray irrigation at Nubaria.

Key words: Irrigation regime, drought tolerance, *Triticum aestivum*L, genetic diversity, new wheat lines.