

**STUDYING CORRELATION BETWEEN RAPD MOLECULAR MARKER
AND DROUGHT TOLERANT AT SEEDLING STAGE IN BREAD WHEAT
(*TRITICUM AESTIVUM* L.)**

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Bread wheat is one of the most important cereals in the world but unfortunately its yield is affected by drought stress in most areas. Drought stress especially at seedling stage has crucial effects on crop yield and even plant survival. Molecular markers help breeders to identify tolerant genotypes faster and more reliably. This research was conducted in order to identify RAPD markers associated with drought tolerance at seedling stage. It consisted in two steps. In the first one, ten Iranian bread wheat genotypes were evaluated for drought tolerance at seedling stage; stress tolerance index (STI), water use efficiency (WUE), biological yield (BY), shoot dry weight (SDW), root dry weight (RDW), root/shoot weight ratio (R/S) and relative water content (RWC) were measured in order to rank genotypes into three categories: tolerant, moderate and susceptible. During the second step, the same genotypes were characterized by using 30 RAPD primers. Two of them produced two unique bands which were present only in tolerant genotypes. These bands might be used to design more specific primers, such as SCAR, for detection of drought resistance QTLs in bread wheat.