

Budakli E, Celik N, Turk M, Bayram G, Tas B (2007) Effects of post-anthesis drought stress on the stem-reserve mobilization supporting grain filling of two-rowed barley cultivars at different levels of nitrogen. Journal of Biological Sciences 7: 949-953.

Abstract

The objectives of this research were to determine the contribution of stem reserves to grain development under drought stress conditions that were created at post-anthesis by chemical desiccant application and to determine the drought-resistant varieties grown at four levels of nitrogen under the ecological conditions found in Bursa, Turkey, in 2003 and 2004. Ten varieties of two-rowed barley were used as plant materials in the experiment. In this study, various parameters-such as Dry Matter Translocation (DMT), Dry Matter Translocation Efficiency (DMTE), Rate of Grain Weight Reduction (RGWR), Mean Productivity (MP) and Seed Yield Tolerance (SYT) of varieties were determined. The highest values of DMT and DMTE were found in the Serifehanim-98 and Balkan-96 varieties and the lowest values in the Angora variety, according to the 2-year study results. The other varieties varied between these values. On the other hand, Serifehanim-98 and Suleymanbey-98 had the highest MP and the lowest SYT values that are considered ideal for growth under dry conditions.