

Abstract

Grains have a major role in supplying human nutrition and increasing the world population in recent years, The importance of their production has increased. Drought stress is one of the factors reducing grain yield. This research was carried out in order to evaluate the effect of organic growth stimulator (Hamoon Green®) and calcium on some vegetative and reproductive characteristics of wheat and barley under drought stress conditions in a research farm of Zabol University, Chah Nimeh, in 1397- 1396, in split plot design based on Complete randomized blocks with three replications. The main factor included irrigation cut off levels based on the phenological stages of plant growth using Zadoxia scale at three levels from stem growth stage (code 31), the beginning of flowering stage (50-51) and grain milky stage (73-74), sub-plot included two plants namely Wheat (Ofogh) and barley (Zahak) cultivars and sub-sub plots including four levels of fertilizer treatment: Plant height, spike length, number of seeds per spike, 1000 seed weight, biological yield, grain yield, seed protein, photosynthetic pigments, proline, selenium and calcium seeds content. Drought stress reduced all parameters, which was a significant reduction in drought stress on biological yield of 20.20% and grain yield of 25.76%, respectively. Foliar application of organic growth promoters and calcium have been effected on all studied parameters.

Key words: grain yield, drought stress, spraying



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**Effect of organic growth factor and calcium on vegetative and
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conditions**

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