

Abstract

In order to study irrigation and biofertilizers on physiological characteristics and yield of corn in Jiroft area, a split plot design in a randomized complete block design with 3 replications was conducted at Jiroft Agricultural Research Center. The treatments included irrigation as the main factor in four levels (irrigation after 50, 70, 90 and 110 mm evaporation from the level of A class pan) and solubilizing of biological fertilizers before flowering as a sub-agent at four levels (amino-valine, Aminos, zinc aminocalts and potassium aminocalts). The measured traits were: plant height, stem diameter, ear height of ear, ear length, ear diameter, row number per ear, number of seeds per row, biological yield, grain yield, harvest index, grain protein percentage, chlorophyll a and b , Carotenoids, proline leaves, carbohydrates, catalase and peroxidase enzymes, mineral elements (potassium, nitrogen, magnesium and zinc). The results showed that the effect of different irrigation treatments on the studied traits was significant, so that the highest grain yield was obtained from the lowest dry area with a mean of 7.44 and the lowest grain yield with an average of 6.55 t / ha from 110 mm water treatment Evaporation from the pan came. Different fertilizer treatments were significant for all studied traits and the highest grain yield was related to the treatment of potassium aminocalate (7.93).

Keywords: *Zea mays*, Yield, drought stress, Soil Fertility.



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Effect of drought stress and biofertilizers on physiological characteristics and yield of corn (*Zea mays*) in the Jiroft region

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