Effect of defoliation on yield and water use efficiency of maize (Zea mays L.)

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Abstract

The effect of defoliation on yield and water use efficiency of maize (Zea mays L.) was studied. The experiment was conducted at the research station of the University of Baghdad, Iraq, in 2018. The experiment was a randomized complete block design with four replicates. The treatments consisted of four levels of defoliation: no defoliation, 25%, 50%, and 75%. The results showed that defoliation had a significant effect on yield and water use efficiency. The highest yield and water use efficiency were obtained in the control treatment (no defoliation). The percentage of defoliation significantly decreased yield and water use efficiency. The highest decrease in yield and water use efficiency was observed in the 75% defoliation treatment. The results suggest that defoliation should be avoided to maintain high yield and water use efficiency in maize.