

## WATER USE EFFICIENCY OF MAIZE IN FIELD EXPERIMENTS

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**Abstract.** *There is little direct in field information about the effects of the abiotic stress factors such as low soil water content on the photosynthesis system of crops. Some recent publications pay attention on this field of research. The water stress has significant effect on the yield and other agronomic parameters of maize. The aim of our work was to get more data about the relations between the water supply and the assimilation parameters. The photosynthetic gas exchange parameters of maize are remarkably improved by nutrient supply in well watered conditions. The water stress through decreased stomatal conductance has significant negative effect on the assimilation parameters of the crops. The obtained results suggest that the water use efficiency of the maize is higher under dry conditions. In well water supply state maize uses up to 330 per cent more water for 1 g CO<sub>2</sub> assimilation.*

**Keywords:** maize, water use efficiency, abiotic stress

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