Stratification of air temperature and air humidity in maize stand

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A b s t r a c t : Stand microclimate is an own surrounding of stands, which forms it by the adjustment of mesoclimate. At the same time the course of physiological and biochemical processes connected with the exchange of matter on various levels of the stand is dependent on temperature and air humidity. The automatic microclimate measurements with the help of the measuring centre were performed in the maize stand on the grain during the vegetation season of 2001 on experimental areas of the School Agricultural Enterprise in Žabčice. The analysis of the results from the clear days has shown, that during the vegetation period due to the inclusion of the stand an independent microclimate is created, where the evaluated meteorological elements have different values within the framework of the daily course at various heights. By the connection of the stand, the values of maximum and minimum air temperature under the effective height decrease, and on the other hand values of water vapour pressure and relative air humidity increase in comparison with the active layer of the stand, that is at the level of effective height, and above.

Key words: microclimate, maize stand, air temperature, air humidity, clear day

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