MODELLING MAIZE AND INSIDE CANOPY AIR TEMPERATURES RESULTED FROM POSSIBLE LOCAL CLIMATE MODIFICATION IN HUNGARY

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Abstract

The local consequences of global climate modifications in maize canopy were studied at Keszthely (Hungary). Every input of the model (both meteorological and plant features) was collected at Keszthely Agrometeorological Research Station during the past three decades. We applied the crop microclimate simulation model (CMSM) of Goudriaan using 6 Scenarios, where the first one contains the actual data. From the outputs of the model we focused on the crop- and inside canopy air temperatures. We concluded that the temperature prognosis showed close connection not only with meteorological (environmental) elements, but also with actual canopy architecture, the leaf area index and density of leaves.

Key words: *maize, local climate, canopy air.*