
WATER BALANCE – EXPRESSION OF THE AMOUNT OF WATER IN LANDSCAPE

ROZNOVSKY, J.^{1,2}; CHUCHMA, F.¹; FIALA, R.¹; KOHUT, M.¹

¹Czech Hydrometeorological Institute, Brno Branch

²Mendel University in Brno, Faculty of Horticulture

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Course of the weather in the last years shows that variability of the weather increases and this also leads to a higher frequency of floods, as well as drought. Drought, regardless of its type, means that there is a lack of water in landscape. The question is how to express the amount of water in landscape in the most suitable way. The Brno branch office of the Czech Hydrometeorological Institute uses the AVISO model to calculate basic water balance in weekly steps for grassland, expressed by the difference between precipitation amount and potential evapotranspiration. The calculation uses daily values of sunshine duration, air temperature and humidity and wind speed. The basic assumption of extraordinary drought is low precipitation amount and longer periods without rain. However, high air temperatures also have an effect. Analysis of years with extraordinary drought shows that the course of water balance deficit is different in each year. By the end of vegetation period the deficit is even over 200 mm.