

**DINAMIOIC REACTION OF *STEVIA REBAUDIANA BERTONI* (L.) ON THE  
CHANGES IN PHOTOPERIOD AND SOIL MOISTURE**

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New plant – *Stevia rebaudiana Bertoni* (L.) – is being used to produce sugar-substitutes for food production. The reaction of this plant on changes in photoperiod and soil moisture was studied by classical method of phytomonitoring in controlled conditions. To characterize the plant physiological condition the complex of water exchange parameters, including the dynamics of leaf turgor, was analyzed. The results have shown that there was the plant dynamic adaptation to the changes in the periods of light and darkness, which was identified by the in-advance changes in the leaf thickness. Changes in the photoperiod result in the changes in the regular daily leaf turgor curve which was formed before the changes started. It was shown that the plant had low draught resistance and would keep a high level of transpiration even when the soil moisture was at low level.

**Keywords:** phytomonitoring, plant water exchange, controlled agroecosystem, photoperiod, Stevia.