

MULTIFUNCTIONAL SENSOR COMPLEX FOR PHYTOMONITORING UNDER INTENSIVE PHOTOCULTURE CONDITIONS

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The paper presents the results of testing the developed non-invasive complex of sensors for long-term automatic monitoring of the parameters of the plant's environment (temperature, humidity, illumination) and the dynamics of the plant state (growth indicators, bioelectric potentials of the root zone, optical parameters of leaves) when growing plants under conditions of intensive photoculture. The use of the multifunctional complex of sensors when growing plants in intensive photoculture makes it possible to track the dynamics of growth and development of plant organisms, to study the effect and assess the optimality of external conditions for realizing the production potential of plants, and also to adjust the cultivation technology based on the obtained data.

Key words: bioelectrogenesis, non-invasive electrodes, leaf optics, light conversion, Arduino.