

COPNCEPT OF LOW COST COMPUTERIZED MEASURING SYSTEM FOR MICROCLIMATE PARAMETERS OF GREENHOUSES

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Abstract

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Based on the analysis of topical regulated requirements for modes of cultivation on protected grounds and existing methods and means relating to building computerized measuring devices and systems of microclimate parameters of greenhouses, informative set of physical microclimate parameters of industrial greenhouses was found. The investigated system was developed for both types of greenhouses – heated and unheated. Block diagram of a computerized measuring device was developed using modern low cost component base and technology. Basic functions that are binding in the development of the information-measuring system of microclimate parameters of greenhouses have been listed and substantiated. Operation algorithms and hardware provision of the model meter sample have been designed. The algorithm of integral assessment of the current state of greenhouse microclimate by on-line measurement of regulated parameters with further accumulation of database and building on their basis extrapolation models of informative indicators of dynamics. The priority perspective areas for further research on computerized meters in order to improve efficiency and productivity of agricultural enterprises with protected grounds have been determined.