

Title 'On-line' sorting apples in modern technologies for providing quality of fruit and vegetable in chains
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Abstract

A model of a system for “on-line” automatic quality determination and sorting apples, on the base of the transmitted light, has been developed in the University of Food Technologies (UFT), Plovdiv (Bulgaria). The possibilities for adaptation of similar (stationary) systems, under the conditions and regulations when ensuring quality of fruit and vegetable in the whole chain from the producer (grower) to the consumer, have been examined with this model. The results from investigation the problems, concerning the implementation in practice of the systems for automatic “on-line” determination the quality (internal and external diseases) and defects are presented in the paper. A comparison of the possibilities for increasing the speed of qualification and sorting, when using different approaches for solving the integral equation of the system, has been made. Data for choosing hardware decision for speeding up the procedures, when forming the images of the products and their transformation are shown. The examined approach for adaptation of fast algorithms in the automatic quality classifier of apples represents one possible direction for decisions of the problems of adaptation – speeded (real time) procedures combined with constructive compactness and mobility.