

AUTOMATION OF TECHNOLOGICAL PERFORMANCE INDEX PRODUCTION PROCESS CONTROL POULTRY

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In this article, the authors discuss the computerization and automated-zatsiyu technologies in poultry farming. Production is carried out in an automated way on technical and economic criteria.

Information technology in the automation technology, processes, production efficiency, technical and economic parameters.

Cost-optimal control of technological processes at the present stage of development of the agricultural, more specifically, agricultural engineering science is the highest level of automatic and automated control in the manufacture of products, including poultry [1]. In the near future, when the energy prices of all kinds, of course, an all-time increase (signs of which are already observed at this time), it is possible and reasonable will move partially or completely on technology management, energy criterion. But even the management of time-tested in other subject areas encounters serious economic grounds of opposition from the representatives of the traditional management of technological criteria, in varying degrees, are connected only with the productivity of biological agriculture.

The purpose of research – the creation of new scientific and technical solutions use technology indices of production efficiency in the management processes of the poultry industry.

Materials and methods of research. For many years it conducted a constant and sufficient productive search for some interim management criteria agricultural technologies that are between pure technology and pure economic characteristics of efficiency of technological processes. In the poultry industry, for example, it is widely known European (Russian) EVI productivity index, measured in relative units and is calculated as follows.

The results of research. Meaning EVI allows you to immediately upon receipt to assess the effectiveness (effectiveness) poultry enterprise, technology, process. The sooner Numerical evaluation of the quality of the enterprise said on the European standard, the faster you can take administrative or technical and technological solution for the amendment of existing production equipment and improve the progress of technologies and processes in the poultry industry. Also, you can successfully, efficiently finish the feeding and rearing of poultry in this their state until they are at the current time index value productivity more efficient. This can prevent the senseless costs of feed, energy man-made for the continuation of the processes have become ineffective feeding and rearing of poultry. For example, it is quite obvious that in the final stage of a significant portion of poultry feed biokonversnoy energy goes simply to maintain the life of the bird with a big body weight. The increase in body weight, ie, Poultry productivity is greatly reduced. The expenditure of material and energy resources poultry farm becomes effective (not effective). It should be no such efficient processes and feeding of poultry to stop immediately. However, technical solutions for this purpose does not exist. Hence, the creation of new technical solutions for rapid automated comp productivity index values, such as EVI is to control the duration of the technological processes of poultry feeding and appropriate and can significantly increase the level of equipment for the poultry industry and the efficiency of the poultry.

It is understandable desire of developers like the index of efficiency of production accounting for only the most basic factors costly process of growing birds. This, of course, first of all, simplify sign-round performance. Secondly, every once coined not fully economic efficiency index should be more and more fully assess the features of the process, for example, take into account the peculiarities of each of the parties of farmed poultry flocks heterogeneity of live weight of each individual. Why do it? The fact that this book shows the need for knowledge of the true values of the average live weight broiler for accurate process control feeding and rearing of poultry on economic criteria. Most livestock heterogeneity of live weight poultry without its accounting in the formation of a new index of the next production efficiency will lead to that achieved by the average live weight broiler and accepted threshold index

technology can finish. But while a large part of the livestock with less body weight than the average live weight, it actually turns out to be substandard by live weight of these animals. So technology should continue, and for this we have to generate a new index of efficiency, taking into account the statistical evaluation was uneven flocks of birds. Here is a numerical characteristic of this assessment, and should be supplemented with an index of productivity of the form (1) and all similar indexes, which are essentially simplified versions feature comprehensive economic efficiency of livestock and poultry. The processes associated with a random sample independent of any individual weighing as fundamentally necessary statistical processing of random signals of live weight and number of the weighing of the facts, this supplement productivity index EVI really a must. It proposed the following form of this supplement, which will be called factor accounting representative (sampling) measurement error.

Conclusions

New productivity index allows you to automatically stop the process of raising animals and birds, taking into account new features compared to the known possibilities. This increases the efficiency of the technology of growing conditions in the new joint sample weighing and changing heterogeneity livestock herds, which gives the effect of the termination of the accuracy of the technology of growing and Correspondingly-tively, additional savings of fodder and other material, labor, energy and O poultry farm.