

UDC 631.171

**ECONOMICAL CRITERION FOR SELECTING CONTROL STRATEGY
OF BIOTECHNICAL OBJECTS**

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Since the control system living conditions of laying hens in industrial poultry houses using undetermined Lagrange multipliers and game theory and statistical decision-making showed better compared to traditional systems of stabilization are important criteria for choosing the best development of these management strategies.

To assess the impact of control algorithms for energy performance and effectiveness of the biotech facility should compare performance to the same technical object. For technical object take aviary for keeping 30,000 chickens hens size $72 \times 18 \times 3,1$ m, equipped with 22 fume extraction plants with air exchange (5300 - 228000) m³ / h, two heat generators with combined capacity of fans on the heat to 754 200 kJ / h and on air - 14000 m³ / h each. Subsystem heat distribution and provides warm air temperature in the poultry house during the cold period via a distributed system of air speed.

Compared the quality of the system based on game theory and statistical decision and undetermined Lagrange multipliers. By using input from observations that were conducted during 2004. As the simulation models used the software, which implement the theory of indefinite Lagrange multipliers and game theory and statistical decision. The analysis of the statistical data of the experiment allowed to build graphical differences depending on quality indicators above operation control systems and to make such findings:

1) winter (1 month (January), 2 (February), 12 (December) the effectiveness of systems based on game theory and statistical decision much better than a system based on undetermined Lagrange multipliers (10-80%);

2) in the summer operating system almost a level of profitability and energy costs;

3) in the spring and autumn system based on game theory and statistical decision is 5-15% energy efficiency.

So to assess the efficiency of the developed control systems Electrical complexes of agricultural products should be used profitability ratio of fixed assets.