

CURRENT FACTORS LIMITING AND CONTRIBUTING TO EXTENDING THE DURATION OF EGG PRODUCTION IN CHICKENS

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Extending the life of laying hens seems to be the most relevant and logical approach to more efficient use of resources in industrial poultry farming. To achieve this goal, a multifactorial approach is required and, first of all, maintaining the physiological characteristics of the reproductive system of chickens, which is responsible for the laying of eggs by hens. Under the influence of a complex of stress factors, changes occur in the body of laying hens, as a result of which the feathers fall off, body weight decreases, involution of the reproductive system occurs, and egg laying stops. During molting, the following occurs: utilization and removal from the body of ballast substances that have accumulated, utilization of fat reserves, increased activity of the adrenal glands, thyroid hormones triiodothyronine and thyroxine, decreased activity of the gonads, luteinizing hormone, cessation of functions of the reproductive organs, increased levels of somatotropic hormone in the blood and fabrics. Such changes lead to an increase in the rate of metabolic processes in chickens, an increase in protein synthesis necessary for the growth of new feathers and the production of eggs. At the same time, the breakdown of tissue proteins is stopped. In addition, the most important are the usefulness of the chicken's bones, which is the main reserve of calcium, and the exclusion of diseases associated with the functions of the reproductive system. All these problems associated with reproductive function will require solutions when extending the life of laying hens. The main method for solving this problem is forced molting as a biological feature of restoring productivity when using chickens in industrial poultry farming. The essence of forced molting is that an artificial molting is caused in the bird, which takes place in a shorter period of time than natural, and begins and ends almost simultaneously for the entire bird population. The purpose of this technique is to renew the bird's body through the utilization of fat accumulations, removal of ballast substances, reversible evolution and gradual restoration of the functions of the reproductive organs.

Forced molting in industrial poultry farming using chemical, mechanical, hormonal, stress-inducing and other non-natural methods is not attractive from the point of view of the welfare and protection of biodiversity of the animal world. Therefore, in the future it is unlikely that these methods will find wide application in economic savings.

Keywords: artificial molting, chickens, egg production, reproductive system, restoration of productivity.