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DIRECTED BREEDING OF THE FARM ANIMALS AS A SUBJECT OF SCIENTIFIC RESEARCH OF PROFESSOR M. KRAVCHENKO

Summary

The author has proved that doctrine of individual development of the farm animals is central in animal science. Clarification of the nature and genetic mechanism of this complex process makes it possible to more specifically to predict and manage with performance of farm animals, extend the period of their productive use. The several researches have been devoted to a generalization of approaches of some scientists to develop problem of individual development of farm animal in domestic animal science. However, the authors had not aim – to specify the contribution of Professor M. Kravchenko to the development of the main provisions of the directed breeding of farm animals in the overall context of the forming and development of the theory of ontogenesis. Therefore, the goal of this research – identifying the key milestones in the forming of the scientific direction, proving of M. Kravchenko's priority in the development of its some provisions. The research is based on the use of scientific and historical methods, source analysis. The author has established that concept ontogeny was first introduced in 1866 by the German naturalist Haeckel. The foreign and domestic scientists I. Andrievsky, H. Drish, F. Eisner, M. Kravchenko, M. Livanov, A. Malihonov, A. Middendorf, G. Podoba, P. Pshenichny, W. Ru, K. Svyechyn, S. Hodetskyy, M. Chyrvynsky made a significant contribution to the theory of ontogenesis. Their research have revealed the basic laws of embryonic and postembryonic of farm animal development, influence of genotype and environmental factors on the formation of productive signs.

The author argues that special contribution to the development of specific provisions for individual development of the farm animal made Doctor of Agricultural Sciences, Professor M. Kravchenko. In his book "Principles of management of individual development of farm animals" (1958) he has elaborated the basic processes that determine individual development of the animals. As basic elements of formation in ontogenesis he considered: differentiation, specialization, integration and adaptation.

The article indicates that the increased interest of scientists led to farm animal directed breeding which he understood as biologically, technically and economically reasonable system of targeting influence on individual development of farm animals in order to get the best development of the planned productive and breeding characteristics. The scientists have substantiated that the nature of the individual animals is determined by heredity and environmental conditions. He included to the environment in the first place: food, water, air, their chemical composition and physical state and other animals.

According to the author, it is very important conclusion of M. Kravchenko about selectivity of individual development, which he meant as the ability of the body to take from the environment necessary thins for its existence and development. However, he don't identified the selectivity as heredity. He understood heredity as transfer characteristics inherent for the organism to descendants. In the scientist's researchers selectivity was determined by heredity and was a means of implementing inheritance. He identified two main groups of effects on the individual development of the animals: natural and artificial.

The author proved that in the area of scientific interests was general business problem – the fight against aging of the farm animals. As you know, early culling of livestock increases the cost of breeding and livestock production reduces the effectiveness of recruiting young to repair the herd. He has justified that the aging process depends on the breed, individual characteristics of the farm animals and the conditions in which they are breeding. M. Kravchenko attached great importance to the selection of animals which have good healthy and high performance in old age. Scientists recommend eliminating the causes that lead to a rapid deterioration of the body to follow rationed feeding regime, duty and rest, avoid stress, keep hygienic conditions, special diets. Among the artificial means of maintaining life-long performance he singled out: physical, chemical and biological. He has outlined measures that allow prolonging service life of farm animals. M. Kravchenko – one of the first scientists who proved total economic value of problem of individual development and management of productivity use of the farm animals.

Key words: animal husbandry, ontogenesis, farm animals, feeding, keeping, productive use.