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HISTORICAL STAGES OF STATISTICAL METHODS IN GENETICS AND ANIMAL BREEDING

Summary

The main components of the economic efficiency of livestock is the genetic potential of milk production, the full feeding, intensity of cultivation and reproduction of the herd, the level of veterinary protection, saturation energy production, the use of scientific and reasonable system of breeding. For monitoring of relevant indicators, estimates of breeding values, using standardized methods of monitoring performance, which for many decades cannot be imagined without the use of statistical techniques, and today even without the use of a variety of information systems based on computer.

Formation of research in domestic animal was under the influence of scientific and educational thought in agronomy. Historical analysis of the development and implementation of statistical methods and approaches to agricultural research needs of business and breeding of animals and plants has become a subject of research of local scientists. However, it is found research study concerning the historical process of implementation of statistical and other mathematical techniques to solve scientific and practical problems of agricultural livestock. Considering the constant use of modern mathematical methods and approaches in agricultural research and practical applications, their importance for the further development of agricultural science, it is necessary to conduct analysis of possible ways and perspectives on the use of statistical methods for scientific needs of the livestock industries.

The use of mathematical methods in the areas of inheritance, theoretical

genetics, artificial insemination, improvement and development of new methods and techniques of selection was still one of the preconditions of formation and implementation of mathematical methods in agro biological studies. They are used primarily for accurate assessment of the productive traits and breeding animals, determining exposure to certain factors, including heredity and environment, the formation of these features, to calculate the value of the connection between signs and determine the effectiveness of methods of selection and prediction of genetic progress in generations. The use of computers greatly simplifies the process of obtaining biometric data processing along with many parameters, allows determining the breeding value of animals and family groups in the herd and breeding them to make the most effective selection and recruitment, to solve many other issues in respect of the systematic selection and breeding.

Considering the process of implementing statistical methods for the purpose of breeding, first need to estimate the contribution of these technologies for the distribution and reception of new agricultural knowledge and information. Themselves mathematical methods and modern technologies are components of the development and implementation mechanism of information support specialist agronomists using the full potential of agricultural science and education that provides for the basis of the knowledge and information to improve the quality and characteristics of the relevant Agrosystem function more effectively. Therefore, the experience with the formation and development of mathematical and statistical techniques and technologies for the needs of agronomy is necessary and useful at the present time of radical change in our society.

The development of genetic studies of variation, heredity and economic relationship of useful features animals was the cause of widespread use of the arsenal of mathematical methods. They are used primarily for accurate assessment of the productive traits and breeding animals, determining exposure to certain factors, including heredity and environment, the formation of these features, to calculate the value of the connection between signs and determine the effectiveness of methods of selection and prediction of genetic progress the generations.