

S. L. Khmelnychi. Variability of population-genetic parameters of cows' exterior of Sumy innerbreed type of Ukrainian Black-and-White Dairy cattle

The study of variability of population-genetics parameters of cows' exterior was conducted on the livestock number of Sumy interbreed type of Ukrainian Black-and-White Dairy breed in the pedigree farm Pidlisnivska branch of PJSC «Rise-Maksymko», Sumy district.

The level of positive correlation coefficients and their reliability showed that milk yield of first-calf heifers in the experimental herd to the greatest extent depended on the height at withers ($r = 0.458$) and rump ($r = 0.324$), depth of chest ($r = 0.375$) latitudinal measurements of backside ($r = 0.263-0.375$), body length ($r = 0.303$) and chest girth ($r = 0.388$). With age, the relation between the measurements of body conformation and the amount of milk yield of first-calf heifers in this direction remains, but with a slight decrease of correlation coefficients that can be the result of natural growth of age variability of exterior traits under the influence of ontogenetic regularities of development and paratypical factors.

Analysis of inheritance coefficients of the body conformation measurements of the estimated cows of Sumy innerbreed type of Ukrainian Black-and-White Dairy breed showed their genotypic variability, which varied within the recorded lactations.

In the pedigree farm a sufficient, reliable according to Fisher criterion, level of inheritance coefficients was found, which would provide appropriate effectiveness of mass selection on the measurements of height at withers and rump, depth of chest, latitudinal measurements of backside which were different in the first and second lactations.

Somewhat lower and less reliable levels of the inheritance coefficients of body measurements traits were obtained from cows according to the third lactation, which is explained, in a certain way, increasing age variability of the estimated traits.

The level of correlation of the measurements with milk yield allows to perform indirect selection by type, and the figures of inheritance of the measurements confirm the possibility of efficient selection of dairy cattle at the age of the first lactation with the aim of improvement of exterior for the herd and breed.

Keywords: correlation, inheritance, measurements of body conformation, milk yield