

ASSESSMENT OF THE IMPACT OF HEREDITY OF HOLSTEIN FRIESIANS ON CONFORMATION AND MILK PRODUCTIVITY OF COWS OF UKRAINIAN BREED

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On the stage of propagation and improvement of Ukrainian black-spotted and red-spotted dairy breeds, when stock was selected, priority has been given and is given to the manifestation of the desired breed type in animals rather than to portion of conditional heredity of the parental breed [1]. One of the main and the most objective criterion when propagating animals of the desired kind with high and stable milk productivity, sound health and satisfactory reproductive qualities during several lactations is a selection of animals by their conformation type [2, 3, 4, 5]. Ukrainian black-spotted and red-spotted dairy breeds were propagated with maximum use of Holstein Friesians, breed – which is characterized not only by the highest milk productivity in the world, but the best conformation type. Therefore, we have studied and analyzed influence of the portion of conditional inheritance of Holstein Friesians breed in genotypes of the above said dairy breeds on manifestation of their conformation type and productivity.

Our investigations showed that conformation type of animals depends considerably on the portion of Holstein Friesians breed heredity. When Holstein heredity increases in genotypes of

Ukrainian black-spotted and red-spotted dairy breeds, also increases scores of group characteristics according to 100-point linear classification system [6]. According to this classification system firstborns of the group comprising both breeds win the best scores, portion of Holstein Friesians heredity is 87.5-100%.

During our studies we have also ascertained that matching with the desired type according to the complexes of characteristics of linear score considerably depends on animals' genotype. Increase of the portion of Holstein heredity leads to the decrease of differences between characteristics of different genotypic groups and parameters of animals of the desired type. Firstborn-cows that belong to the group with 87.6-100% of Holstein heredity portion match best to the desired type by the complex of characteristics of linear score, much worse – with heredity portion no more than 87.2%.

According to the declarative linear conformation classification system high-, clean-breed Holstein Friesians cows (both breeds) with heredity portion by Holstein Friesians – 87.5-100% were again recognized the best.

Our studies provide strong evidence of the positive effect of increase of heredity portion of Holstein Friesians breed in genotypes of Ukrainian black-spotted and red-spotted dairy breeds to the level of phenotypic consolidation of group and descriptive characteristics of linear classifications. We have ascertained that increase of the portion of heredity of Holstein Friesians breed in genotypes of cows of Ukrainian black-spotted and red-spotted dairy breeds results in increase of characteristics of linear classification with positive value of coefficients of phenotypic consolidation.

Milk productivity within genotypes of firstborn-cows of both breeds significantly relents to parameters of cows of the desired type. Nevertheless, it should be underlined that increase of the portion of heredity by Holstein Friesians with an interval of 12.5% milk productivity indexes move to parameters of the desired type.

Increase of the portion of heredity of Holstein Friesians breed in genotype of cows of Ukrainian black-spotted and red-spotted dairy breeds furthers formation of the desired conformation type characteristic of the breed that is being improved and increase of milk productivity. Thus, there are good reasons to breed cows with portion of heredity by Holstein Friesians 87.6% and more, as parameters of cows of this group match best the parameters of the cows of the desired type.

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