MILK PRODUCTIVITY OF COWS DEPENDING ON THE SELECTION INDEX OF A FATHER

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In the article there are given the results of the analysis of milk production of cows of the Ukrainian Red dairy breed depending on the selection index of parents. It was established better milk productivity in the context of lactations of daughters of bulls with an assigned selection index compared with the cows whose parents had no estimation for SI. The difference in milk yield in the context of lactations was 519,2 ... 1258,8 kg (P <0,01, P <0,001), in milk yield for 305 days of lactation – 497,4 ... 1177,2 kg (P <0,01, P < 0,001), in a content of milk fat it was 0,1%, in yield of milk fat (per lactation and 305 days) 23,7 ... 50,2 kg (P <0,01, P <0,001) and 22,8 ... 54,0 kg ( P <0,01, P <0,001), in yield of milk protein (per lactation and 305 days) – 17,0 ... 29,5 kg (P <0,05) and 15,4 ... 30,8 kg (P <0,05, P <0,01).

In the context of gradations by the SI the higher (P <0,05, P <0,01, P <0,001) indicators of milk productivity of the first and the second lactations were set in cows with the selection index of a father 601 and higher, Among the fullgrown cows better (P <0,05, P <0,01, P <0,001) indicators of milk productivity were observed in daughters with the selection index of fathers 301-600, and also these animals had higher indicators of productivity for the highest lactation.

The minimum performances of productivity were set in daughters of bulls with the selection index 1-300.

The conducted correlation analysis of key indicators of productivity showed low many-sized dependence in minus value of the selection index of a father (r = – 0,177… 0,113) and the selection index from 301 to 600 (r = – 0,092 … 0,093). The reliable dependence of the middle degree was determined by the indicators of yield and output of milk fat and protein in animals with the selective index from 1 to 300 (r = – 0,275 … 0,375), by the content of fat and protein the correlation with the negative value (r = – 0,176 and r = – 0,157). Multi-directional dependence was found in daughters with the selection index of parents 601 and higher (r = – 0,386 … 0,257) and in the whole by the excerpts (r = – 0,248 … 0,170).

The evaluation of the economic efficiency of milk productivity of cows depending on the selection indices of parents showed that from the daughters of parents
who were estimated it was obtained more than 1236.6 kg of milk in recalculation on basic fatness, and respectively, the income from the sale of milk was higher in 4.2 thousand of UAH.

In the context of gradations higher quantity of milk in recalculation on basic fatness was obtained from daughters with the SI of a father 301-600, the difference with the daughters with the SI of a father below zero was 954.9 kg, SI = 1-300 – 2911.5 kg, SI = 601> – 159.7 kg. Respectively the difference by income from the sale of milk was 3.3, 10.0 and 0.6 thousand of UAH.

Taking into consideration the selection indexes of parents in the selection and breeding work with the cattle of the Ukrainian Red dairy breed will help to increase the volume of milk production and growth of the profitability of dairy cattle.

**Keywords:** BREEDING, COWS, SELECTION INDEX, CORRELATION, MILK YIELD, FAT, PROTEIN, ECONOMIC EFFICIENCY.