

G. S. Kovalenko, S. V. Priyma, G. A. Golyosa, A. V. Tuchykh, L. V. Marchuk, B. B. Lolya. Selection situation in «Oleksandrivske» SE RF for breeding Ukrainian Red-and-White Dairy and Ukrainian Black-and-White Dairy cattle and its improving

Created Ukrainian Red-and-White Dairy and Ukrainian Black-and-White Dairy cattle have a desirable level of reproductive and productive qualities. These breeds are competing successfully with animals of the European selection, so comparative study of pedigree and productive qualities of animals at one of the farms has practical value.

The studies were conducted in the herd of “Oleksandrivske” SE RF at the animals of Ukrainian Red-and-White Dairy and Ukrainian Black-and-White Dairy breeds of Vinnytsia region. The animals of both breeds were kept under the same technological conditions in housing for livestock.

It was taken into account milk production (milk yield, fat content in milk and milk fat) for 305 days of lactation. Expert evaluation of the exterior of first-calf heifers has been conducted for 2015-2016. Assessment of type of body structure of cows was conducted on 100-point scale. Fatness of cows was determined on 5-point scale. The analysis of genealogies of 37 bulls which had progeny in the herd was conducted by breeding index, discharge of breeding values and milk production of ancestors.

Milk production of the animals of the herd was more than 6000 kg of milk for 305 days of lactation. Comparing milk yields, it was found that the animals of Ukrainian Black-and-White Dairy breed dominated Ukrainian Red-and-White Dairy cows of the same age.

It is noteworthy that biological feature of cows to increasing milk yield with each subsequent lactation is positive. Thus, the Ukrainian Black-and-White Dairy cows after the second calving in comparison with the first calving increased milk yield by 380 kg and the animals after the third calving and older comparatively with the second one – by 425 kg more. Also the Ukrainian Red-and-White Dairy cows increased milk yield, respectively, by 348 and 358 kg.

The average body measurements of the first-calf heifers were inferior by targeted parameters of Ukrainian Red-and-White Dairy and Ukrainian Black-and-White Dairy cattle from -0.3 cm (girth of metacarpus) to -7.8cm (height in the sacrum) in most cases.

The total number of points for type of body structure was 87.9 at the animals of Ukrainian Black-and-White Dairy cattle and, respectively, 87.0 at the Ukrainian Red-and-White Dairy cows; it corresponds to the assessment "very good". This indicates the high estimation of individual parts of the exterior.

The cows of the herd had the required fatness. The average of this trait at animals of Ukrainian Black-and-White Dairy breed was 3.0 points and at the cows of Ukrainian Red-and-White Dairy cattle was respectively 3.4 points.

The genealogical structure of the current herd of “Oleksandrivske” SERF consists of two female contingents. The animals of Ukrainian Black-and-White Dairy cattle were derived from 18 bulls belonging to 8 bloodlines. Most of animals belong to R.O.R.Elevation 1491007 bloodline – 45.4%, H.H.Starbucks 352790 and P.F.A.Chief 1427381 bloodlines – 14.4%.

Qualitative characteristic of bulls used for the female livestock of the herd, shows that in the vast majority they are valuable breeding bulls. However, it should be noted that there are progeny derived from bulls with low breeding value in the herd. Thus, bull Matrix Red 136549448 had SI-7 and H- and Trubadur 343643346 had SI-50 and H-. The use of bulls for female livestock of the herd with low breeding value is unacceptable for further breeding work. Expectation of improving the breeding traits in progeny from such fathers is unlikely.

It is planned to accelerate the reproduction of valuable genotypes and increase the rate of genetic progress at the herd using embryos transplantation this year. Donors of embryos will be their own breeding resources. Using this method will make it possible to exclude from the selection process animals with exterior defects and low-yielding cows.

The considered aspects of selective breeding work indicate prospects of using Ukrainian Red-and-White Dairy and Ukrainian Black-and-White Dairy cattle. This applies particularly to increase of milk yield to 8000 kg and more per lactation. Bulls which will be used for breeding stock should have high rates of breeding values (SI +1000 and P4 and more). Especially it applies such features as fat content in milk and some exterior defects.

***Keywords:* breed, milk yield, fat, exterior, type of body structure, fatness, selection index**