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STUDY OF TRENDS CHANGE IN LIVE WEIGHT OF REPAIR HEIFERS OF THE UKRAINIAN BROWN DAIRY BREED AND THEIR EFFECT ON SUBSEQUENT MILK PRODUCTION

Growing young breeding is one of the leading factors that determines the level of productivity of dairy cattle. The intensity of growth of repair heifers provides maximum milk productivity of animals, affects on the duration of their economic use and to some extent determines the economic efficiency of dairy cattle breeding in general. In the leading breeding farms of Sumy region the research was conducted for study features of growth and development of repair heifers of Ukrainian Brown dairy breed. Live weight indices in the studied age periods did not meet the breed standard. It was noted that the highest average daily growth was observed at the age from 3 to 6 months ($600 \pm 9,5$ g). The growth rate indicators have the dynamics of reduction from the birth to 18 months of age. Live weight at birth has a slight significant effect on the growth rates of heifers in the early period (up to 6 months of age). High reliable influence (η^2_x within 31–52 %) of live weight in 6 months of age on their proofs in the following periods is established. A reliable correlative relationship between the indices of live mass in different age periods was found. The values of the correlation coefficients between live weight in 18 months and the age periods from birth to 15 months of age are within +0,12 - +0,90.

Changes in age of the first insemination depending on weight of heifers at 18 months of age were studied. The power of influence on this indicator of heifers live weight made up $\eta^2_x = 16,8$ %***. It was found reliable effect of the index of growth strain and of index of growth uniformity on age at first insemination – respectively $\eta^2_x = 6,1$ %*** та $\eta^2_x = 17,3$ %***. The dependence of milk productivity for the first lactation on the rate of increase in live weight of repair heifers was established. The strength of the influence of live weight at birth is: on the amount of milk yield - $\eta^2_x = 3,9$ %*, the amount of milk fat - $\eta^2_x = 6,3$ %** the amount of milk protein - $\eta^2_x = 4,3$ %*. It is established that the implementation of genetically determined productive capabilities requires of intensive cultivation of repair heifers and achieving their live weight at the age of 18 months at least 350 kg.