

*A. Ye. Pochukalin. Importance of families for genealogical structure of Volyn Beef cattle*

One of the ways of increasing level of animal economically useful traits is selection work with farm families. In pedigree cattle breeding of Ukraine families are a statistical component of breed genealogy. Among the main scientific works on working with families, it should be noted minimum number of female ancestors, proposed by D. T. Vinnichuk, to determine the breeding value, different categories, classification and techniques for evaluating related groups of females.

**The aim of our research** was to analyse importance of farm families for genealogical structure of the breed.

The research was on basis of data of primary breeding records at the herd of Volyn Beef cattle of “Zorya” breeding farm, Kovel district, Volyn region. Akula 102, Galka 37 and Galka 1537 families belonging to Krasavchyk 3004 bloodline, Smorodyna 613, Korona 2382 and Visla 1016 families – Tsebryk 3888 bloodline, Kalyna 212, Verba 1536 and Garna 536 families – Yamb 3066 bloodlines, Kazka 433, Galka 421 and Bystra 1124 families – Buinyi 3042 bloodline, Rozetka 1313, Arfa 599 and Bulana 943 families – Sonnyi-Kaktus 3307-9828 bloodline, and Palma 275, Desna 870 and Veselka 444 families – Mudryi 9100 bloodline were characterized. Belonging to a bloodline was determined by the father's side of female ancestors. Structural units of families: branches, branching with identifying the best individuals on breeding traits were submitted to identify the best combinations and successful use of closely related breeding.

Comparing assessment of related groups of females on the main breeding traits belonging to Krasavchyk 3004 bloodline, it was noted that the cows of Akula 102 family predominated in live weight at 5 years’ age, milk ability and economic use duration, whereas the cows of Galka 1537 family – on traits of reproductive ability. Smorodyna 613 family of Tsebryk 3888 bloodline had high duration of economic use and cows’ live weight at 5 years’ age compared with Korona 2382 and Visla 1016 families with equal values of the exterior traits (height measures) and coefficient of reproductive ability. The families of Mudryi 9100 bloodline in terms of reproduction (calving interval, coefficient of reproductive ability) had the highest figures of cows’ milk ability and live weight.

The cows of Bulana 943 family had a considerable predominance over representatives of Rozetka 1313 and Arfa 599 families of Sonnyi-Kaktus 3307-9828 bloodline by main economically useful traits. High indices of reproductive ability were noted in these families. Heifers of the families of Buinyi 3042 bloodline had high live weight at 18 months’ age at average values of milk ability and cows’ live weight at 5 years’ age.

More equal figures of growth rate, exterior and economic use duration were observed in the cows of Kalyna 212, Verba 1536 and Garna 536 families of Yamb 3066 bloodline.

Breeding by families in beef cattle breeding is an important element of selection, because it allows to evaluate not only related group of female ancestor, but

also to analyse a successful combination with lines and purposeful use of closely related breeding by the best representatives of a breed.

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