THE ALGORITHM for SOLVING the RESULTING SYSTEMS of EQUATIONS BLUP for DETERMINING the BREEDING VALUE of SHEEP

O. I. Horlov, K. A. Ivina, I. O. Mokeyev, O. P. Chichayeva, A. V. Shcherbakov ascitsr priemnaya@ukr.net

Ascania Nova Institute of Animal Breeding in the Steppe Regions named after M. F. Ivanov - National Scientific Selection-Genetics Center for Sheep Breeding Chervonoarmiyska Street, 1, AsKania Nova, Chaplinka district, Kherson region, 75230, Ukraine

Definition of breeding value in sheep breeding is one of the primary goals for increase of efficiency of selection process. Recently models BLUP of different degree of complexity with use of the matrix device are applied. In article the way of an estimation of breeding value of manufacturers by method BLUP by the decision of total system of the linear equations of mixed model MME is examined. The algorithm of construction of this system includes formation of tables of initial data, decisions of system of the linear equations and reception of estimations of breeding value of animals. The algorithm of formation of this system includes the tables of initial data, the total quantity of animals and total value of a selection sign for everyone fixed and randomized effects The information concerning level of live weight 201 offsprings of 12 rams SEEF "Askanijske" had been used for this research.

To be convinced of fidelity of drawing up of total system, the system of the equations of the mixed model has been constructed by matrix way. Irrespective of the fact by which from two considered ways, the system of the linear equations has been received, it has an identical appearance, and as the result of its decision is the estimation of breeding value of animals.

Proceeding from the aforesaid it suggested to apply a method of direct formation of total system taking into account total quantity of offsprings and their total efficiency. Such way more simple for understanding, and the main thing - less labour-consuming at application.

Keywords: rams-sires, BLUP, breeding value, systems of the equations, effects fixed and randomized, the mixed model, matricies direct and transposed.