

**Model experiments with mice to study a closed rotary
Method applied in swine breeding**

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In a model experiment with mice the closed rotary method applied in swine breeding was studied. In order to this a base population was divided into five groups: closed bred and not closed-bred groups (CP, OP) selected for prolificacy, closed bred and not closed-bred groups selected for average daily weight gain (CW, OW) and control group (K).

The selection for prolificacy through 11 generations did not result in considerable success, the selection for average daily weight gain caused an increase of 30.1 p. 100 and 28.5 p. 100 respectively.

The special groups were crossed and the mean values showed heterosis effect and between the deviations of CP × CW and OP × OW a significant difference could be observed in case of each studied traits, so it can be assumed that this procedure may lead to similar results in swine breeding.

**Study of allele fund for polymorphous blood group system
in cattle breeds raised in Byelorussia**

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The genetic status of the *Black-and-White*, *Red Byelorussian*, *Brown Latvian* and *Kostromskaya* breeds of cattle raised in Byelorussia was studied for a complex of traits showing biochemical polymorphism phenomena.

**Selection and genetic aspects of individual and population evaluation
According to endocrine indices**

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It has been established that under conditions of the « functional plateau » achieved by means of the specific stimulation of an effector-gland the influence of paratypical factors on the character of endocrine gland functioning, the variability on the « plateau » being 7-15 p. 100, is considerably reduced. The repeatability of the values for the maximum background concentrations of the secreted hormones increases, which ensures more objective individual genotype estimation and evaluation of genotypic population variability according to endocrine indices.