

## THE STUDY OF GENETIC CORRELATION IN LITHUANIAN WHITE AND LARGE WHITE PIGS

Aleksandras Muzikevičius<sup>1</sup>, Vida Juozaitienė<sup>1</sup>, Sigita Kerzienė<sup>1</sup>, Arūnas Juozaitis<sup>3</sup>, Nijolė Kvietkutė<sup>4</sup>,  
Stepas Grikšas<sup>4</sup>, Elena Čekajeva<sup>4</sup>, Liubov Kalašnikova<sup>4</sup>

<sup>1</sup>*Department of Animal Breeding and Genetics, <sup>2</sup>Department of Animal Nutrition, <sup>3</sup>Department of Animal Science, Lithuanian Veterinary Academy, Tilžės str. 18, 47181 Kaunas, Lithuania.*

*tel. +370-37 36 28 63; e-mail: biometrija@lva.lt*

<sup>4</sup>*Timiriazev Russian University of Agriculture, Timiriazevskaja str. 49; Moscow, Russia.*

**Summary.** The objective of this research was to evaluate the genetic correlation between pig breeding farm “Berka” and whole Lithuanian White and Large White pigs population. The study was performed in 2001-2006 at the largest Lithuanian White pig breeding farm “Berka”, State Pig Breeding Station and Lithuanian Veterinary Academy. For genetic evaluation of production traits the mixed linear model was used. Statistically significant genetic correlations between the main production traits on farm “Berka” and whole Lithuanian White and Large White pigs population were determined. Further, highly significant negative correlation between pigs lean meat and feed consumption (-0.851;  $p < 0.001$ ) in farm “Berka” was obtained. However, the negative correlation in whole Lithuanian White pigs population (-0.172;  $p < 0.001$ ) and in Large White breed (-0.172;  $p < 0.001$ ) was low. In addition, it was estimated that genetic correlation between daily weight gains in farm “Berka” was 0.865 ( $p < 0.001$ ), in Lithuanian White pigs population - 0.302 ( $p < 0.001$ ), in Large White breed - -0.008 ( $p < 0.05$ ), respectively. Finally, the correlation between lean meat and fat thickness in point F2 was from -0.569 in Large White breed to -0.81-0.956 ( $p < 0.001$ ) in Lithuanian White breed pigs.

**Key words:** Lithuanian White and Large White pigs, selection, production, genetic correlation.