

## THE STATISTICAL ANALYSIS OF INFLUENCE OF ECONOMIC CONDITION TO THE INHERITANCE TRAITS

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**Summary.** The aim of the study was to evaluate influence of economic condition to the inheritance traits in Lithuanian pig breeds.

The research was performed in the Animal Test Station, Lithuanian Veterinary Academy, Department of Animal Breeding and Genetics, Laboratory of Estimation Selection and Animal Breeding Values (2000-2003).

The highest influence of economic values for the litter size was found in the Large White, Landrace and Pietrain pig breeds ranging from 22,4 to 15,2 % ( $P<0,001$ ). The lowest influence of economic values in the Lithuanian White was 8,7% ( $P<0,001$ ).

The highest farm effect to the piglet mortality ranging from 25,3 to 10,9 % ( $P<0,001$ ) was found in the Landrace, Large White and Pietrain pig breeds. The farm effect was somewhat lower in the Diuroc and Lithuanian White 8,8% ( $P<0,001$ ) and 9,1% ( $P<0,001$ ) respectively. The lowest effect was found in the Yourkshire breed, 6,2% ( $P<0,001$ ).

Our results are in agreement with most other studies. The highest adaptation, prolificacy and survival of the piglets has local pig breeds with recommends to ecological farming.

**Keywords:** pigs, breed, control feeding, fertility, ecological farm.