

Estimation of Genetic Parameters for Morphometric Traits at Pre-weaning Stage in Landlly Piglets

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Abstract—Genetic evaluation of some novel morphometric traits was carried out at 4 weeks of age (pre-weaning) on 279 Landlly (75% Landrace X 25% Bareilly local) piglets, progeny of 22 boars and 39 gilts/ sows born between September 2017 and April 2018. Heritability estimates of all the morphometric traits and genetic associations among them were determined using sire model. Low to moderate heritability estimates were observed for most of the morphometric traits indicating relatively low amount of additive genetic variation or increasing environmental influence on phenotype. High and positive estimates for genetic correlation among these traits indicated that selection for one trait may result in a correlated response to other traits. Furthermore, either of the morphometric traits can be used in selection program for attaining the overall genetic gain.

Keywords: Heritability, Genetic correlation, Landlly pig, Morphometric traits.