**THE EFFECT OF EARLY CHICK WEIGHTS ON MARKET-WEIGHT IN KOREAN NATIVE CHICKENS**

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This study was to investigate the effect of chick weights at early growing period on market-weight in Korean native chickens (KNC). We measured the body weights of 1,087 male and female chickens from 13 strains of KNC from 1 to 84 days of age at intervals of 2 weeks. The growth performance of 13 strains of KNC was investigated. The correlation coefficients among the weights of chickens at each growing stage and the regression of market-weight on early chick weights were analyzed. The results showed that the average body weight of 70 days-old KNC was 1,962g; 2,154g for males and 1,819.7g for females. The regression equation for body weight on age was estimated as =0.1347X2+18.738X-40.134 (R2=09418). Using this regression equation, the required duration to reach 2kg market-weight of KNC was estimated to be 71.8 days. All of correlation coefficients between early chick weights and market-weight were significantly positive. The correlation coefficient between market-weight at 70-days and chick weight at 1-day was estimated low as 0.10 to 0.13. In the estimations of correlation coefficient with market-weight, there was a high correlation coefficient and a coefficient of determination in the female chicks after 28-days old and in the male chicks after 42-days old. As the results of correlation and regression analysis between early chick weights and market-weight of KNC, the market-weight could be predicted based on the weight of 28-days old for females and of 42-days old for males, respectively.

Key words: early chick weight, market-weight, correlation coefficient, regression analysis