

## The Growth Curve of Gompertz Model in Body Weight of Slovak Mixed-Sex Goose Breeds

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**Abstract :** The growth curve of poultry is important to evaluate the farming management system. This study was aimed to estimate the growth curve of body weight in goose. The growth curve in this study was estimated with non-linear Gompertz model through CurveExpert 1.4. software. Three Slovak mixed-sex goose breeds of Landes (L), Pomeranian (P) and Steinbacher (S) were used in this study. Total of 28 geese (10 L, 8 P and 10 S) were used to estimate the growth curve. Research showed that the asymptotic weight (A) in those geese were reached of 5332.51 g (L), 6186.14 g (P) and 5048.27 g (S). Thus, the maturing rate (k) in each breed were similar (0.05 g/day). The weight of inflection was reached of 1960.48 g (L), 2274.32 g (P) and 1855.98 g (S). The time of inflection (ti) was reached of 25.6 days (L), 26.2 days (P) and 27.80 days (S). The maximum growth rate (MGR) was reached of 98.02 g/day (L), 113.72 g/day (P) and 92.80 g/day (S). Hence, the coefficient of determination (R<sup>2</sup>) in Gompertz model was 0.99 for each breed. It can be concluded that Pomeranian geese had highest of growth trait than the other breeds.

**Keywords :** body weight, growth curve, inflection, Slovak geese, Gompertz model

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