

Abstract

The aim of this study was the determination of lysine requirements based on digestibility of Japanese quail during the starter period. Graduation levels of common salt, sodium bicarbonate and L-lysine. HCL were added to the basal diet of the expense of corn starch until different levels of digestible lysine (0.75, 0.87, 0.99, 1.11, 1.23 and 1.35 % diet) have been obtained. In end experiment, performance and carcass composition were evaluated. Results showed that incremental levels of digestible lysine significantly affected the body weight gain, feed conversion and breast meat weight ($P < 0.05$). Either linear broken- line or quadratic broken line model were used to determining break points of amount of digestible lysine requirement. Based on linear broken line analysis, the break point for body weight gain, feed conversion and breast meat yield were 0.99, 0.99 and 1.04 % of diet, respectively. Respected break points were 1.11, 1.04 and 1.15 % of diet using quadratic broken line. Also, the determination of digestible lysine requirements in diet influenced by modeling statistical methods and performance response.

Key words: lysine, Digestibility, Starter, Requirement, Japanese quail, Broken line model



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**Determination of Digestible Lysine
Requirements of Japanese Quail
During the starter Period**

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