عنوان مقاله:

Genetic Polymorphism in Prolactin Gene and its Association with Reproductive Traits in Japanese Quail (Coturnix
japonica)

محل انتشار:

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

The present study was carried out to investigate the polymorphism of intron 3 to exon 3 of prolactin gene containing 24 bpindel at nucleotide position (np) 358 and its association with some reproductive traits in Japanese quail. These traits consisted of weight (WSM) and age at sexual maturity (ASM), mean egg weight at 2nd, 4th, 6th, and 2-6th weeks (MEW), and the number of eggs during the 2nd, 4th, 6th, and 2-6th weeks of laying period (EN). Blood samples of 194 Japanese quail at 13wk of age were collected randomly. DNA was extracted from blood samples and amplified. The association of prolactin genotypes with reproductive traits was analyzed using the general linear model procedure of SAS software. A 24-bp indel[insertion (I) or deletion (D)] at np358 was identified. Based on the results obtained, the frequency of I and D alleles were 0.52 and 0.48, respectively. Frequencies of II, ID and DD genotypes were 0.10, 0.85 and 0.05, respectively. Genotypes II and ID were significantly associated with increased EN (P0.05). The results showed that prolactin gene polymorphism could be used to improve egg production in Japanese quail through marker-assisted selection.

کلمات کلیدی:

Prolactin gene, Polymorphism, Reproductive trait, Japanese quail

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