PHYSIOLOGICAL AND PRODUCTIVE IMPACTS OF BEAK TRIMMING AND FEED FORM IN JAPANESE QUAIL

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A total number of 288 eight weeks old Japanese quail were chosen in this study for evaluating the impacts of beak trimming (BT) and feed physical forms (F) on physiological, productive performance and aggressive behavior parameters, in a 2 x 2 factorial experimental design. The birds were allocated into two main groups according to beak form [Intact beak (NB) and beak trimming (BT)], then each main group was divided in to two subgroups corresponded to feed form [mash (M) and pellet (P) feed] respectively. The obtained results indicated that beak forms and feed forms changed significantly the final body weight, egg production, feed conversion, fertility %, plumage conditions, aggressive pecking behavior, mortality rate, H/L ratio, plasma testosterone, progesterone and corticosterone concentration. However, there were insignificant differences among the groups in feed intake, hatchability, ovary and testes percentages. Interactions between beak trimming and feed forms factors had significant differences in the plumage conditions, aggressive pecking behavior, mortality rate and hematological parameters. In conclusion: From our study, it could be concluded that using the beak trimming did not have an adverse effect on quail ability of feeding (mash or pellet) and beak trimming was consider suitable solution to minimize aggressive behavior, mortality rates and maximize productive and reproductive performance of Japanese quail.

Keywords: Beak trimming, feed form, egg production, hematological, aggressive behavior, quail