EFFECT OF NON-GENETIC FACTORS ON GROWTH AND READY TO COOK YIELD OF JAPANESE QUAILS

A.Gopinathan¹, J.Ramesh², P.Muthusamy¹, P.Devendran³, T.Sivakumar⁴, S.N.Sivaselvan⁵ and P.Kumarasamy⁶

Livestock Research Station, TANUVAS, Kattupakkam – 603 203

gopilrs@yahoo.co.in

Japanese quail (*Coturnix japonica*) is a hardy bird that could be reared in small cages mainly for meat and needs a less investment. A total of 18,126 day-old quail chicks in 120 batches were procured from Institute of Poultry Production and Management, Nandanam and reared at Livestock Research Station, Kattupakkam during the period between 2006 and 2008. The quails were fed with standard starter and finisher ration up to 35th or 42nd weeks of age and slaughtered. The non-genetic factors such as season of hatching and age at slaughter were taken to analyze their influence on the body weight, weight gain, average daily gain and ready to cook yield by Least-squares analysis (Harvey, 1989). The mean individual body weight was 166.57 ± 1.76 (11,027 quails in 77 batches) and 171.10 ± 2.60g (7,099 quails in 43 batches) around 42nd and 35th day respectively. The least-squares means for
ready to cook yield were 60.05 ± 0.38 and 61.99 ± 0.57 per cent respectively for 42nd and 35th day of slaughter. The values observed for weight gain and average daily gain were 157.07 ± 1.76 and 161.60 ± 2.60 g; 3.74 ± 0.04 and 4.62 ± 0.07 g/day at 42nd and 35th day of age respectively. Season of hatching had a highly significant (P<0.01) effect on individual body weight at slaughter, weight gain and average daily gain. In all traits, the higher values were observed in quails hatched in north-east monsoon followed by south-west monsoon, summer and winter seasons. The age of slaughter was a significant source of variation (P<0.01) for ready to cook yield and average daily gain. The quails in 35th day were found to have higher average daily gain and ready to cook yield. Hence the optimum age of slaughter in quails could be around 35 days.

Key words: Japanese Quails – Slaughter study – Ready to cook yield percentage, Weight gain and average daily gain