DIETARY PROTEIN REQUIREMENT OF BREEDER JAPANESE QUAIL IN HUMID TROPICS

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An experiment was carried out to arrive at the optimum dietary protein requirement in Japanese quail brooder, grower and breeders. Nandanam quail -3 strain breeder quail were reared from 0-day to 30 weeks of age in cages two protein levels of 22 and 24 per cent in brooder diets, two levels of 18 and 20 per cent in grower diets and three levels of 17, 19 and 21 per cent in breeder diets were employed with an isocalorific diet at each phase (brooder-2750, grower-2650 and breeder-2700 kcal metabolizable energy per kg diet). Age at sexual maturity and at 50 per cent hen day egg production and body weight at sexual maturity were not influenced by dietary protein levels employed in brooder and grower diets. Lower (22%) dietary protein level in brooder diet positively and significantly influenced per cent hen day egg production ((76.93±1.65) (P<0.01), feed efficiency per dozen eggs and kg egg mass (P<0.01), per cent fertility and hatchability (P<0.05). A positive influence was also observed for 21 per cent dietary protein over 17 and 19 per cent in breeder diets. Accordingly, dietary protein levels of 22/18/21 in Japanese quail brooder, grower and breeder diets were found to be the most optimal with the least cost of feed for production of hatching eggs and chicks in Japanese quail breeder farming.

Key words: Breeder Japanese quail, protein requirement, quail performance