

## Effect of Varying Stocking Densities and Vitamin C (Ascorbic Acid) Supplementation on Growth Performance of Japanese Quails

**Authors :** T. S. Olugbemi, T. S. Friday, O. O. Olusola

**Abstract :** This experiment was carried out to assess the effect of different stocking densities and vitamin C supplementation on the performance of Japanese quails. Five hundred and twenty (520) unsexed quail birds of two (2) weeks of age were allotted randomly into nine (9) groups with 3 replicates each in a 3x3 factorial arrangement (3 stocking density levels and 3 graded vitamin C levels) with densities of 150, 120, 90 cm<sup>2</sup>/bird (11, 16, 21 birds). During the five weeks growing trial (2- 6 weeks), results showed that stocking density had significant effects on final weight (131.59g compared to 111.10g for the lowest), total and daily weight gain. No significance difference was observed for feed conversion ratio, age at first lay and first egg weight. Observations on haematological parameters (packed cell volume (PCV), total protein (TP), haemoglobin, red blood cell (RBC), lymphocyte, heterophil) on stocking density showed no significant differences. Vitamin C supplementation at 50mg/kg and 100mg/kg did not have any significant effect on the growth performance parameters of growing quails. Stocking density at 150cm<sup>2</sup>/bird had a better performance with or without vitamin C supplementation hence it is recommended that stocking rates of quails between the ages of 2 – 6 weeks should not be below 150cm<sup>2</sup>/bird.

**Keywords :** anti-oxidants, performance, stress, stocking density

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