Effect of Feed Color on Growth Performance and Tonic Immobility in Broiler Chicks

Majid Toghyani, Mohammad Ali Mesmarian

Department of Animal Science, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran

Vision is important in poultry performance and welfare. Color of feed is one of the factors that can affect welfare and performance of poultry. This experiment was conducted to investigate effect of different feed colors on growth performance and tonic immobility in broiler chicks. A total of 240-day-old broiler chickens (Ross 308) were randomly allotted to 4 treatments with 5 replicate pens in a completely randomized design. The treatments concluded: control and three colored feed (blue, green and red). Broilers received dietary treatments from 1 to 42 d in three phases: starter (1-14 d), grower (14-28 d) and finisher (28-42 d). Growth performance parameters (feed consumption, weight gain and feed conversion ratio) were measured in different growth periods. Tonic immobility as fear reaction were determined at 35 d. Feed consumption were increased in green and red feed (P< 0.01). Broilers in colored feed groups were heavier than control (P< 0.05). Lower feed conversion ratio was observed in blue feed and control (P< 0.05). Broilers in blue feed group showed short duration of tonic immobility (less fearful) and in red feed long duration (P< 0.05). The results demonstrated, blue feed had favorable effects on performance and welfare of broiler chicks.

Keywords: Broiler chick, feed color, performance, tonic immobility