The Effect of Heat Stress on Blood Picture of Japanese Quail

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Abstract:

This study aimed to evaluate the effect of heat stress on quail hematological parameters. A total number of 300 Japanese quail chicks (Coturnix Coturnix japonica) of 28 days old were exposed to different levels of raising temperatures (22, 29, 34, 36 and 40 ºC) for 15 days. At 42 days old, blood samples were collected from 14 birds (7 males + 7 females) that were randomly selected. The samples were used for determining red blood cells count, hemoglobin concentration, packed cell volume, total and differential white blood cells count, heterophils/lymphocyte (H/L) ratio, mean corpuscular hemoglobin, mean corpuscular volume and mean corpuscular hemoglobin concentration. The obtained results indicated that, rearing quail birds under high environmental conditions during fattening period has a great adverse effect on these blood parameters.

Keywords:

Heat stress; quail; RBCS; WBCS count; Hb; PCV; differential leukocytes count.

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