Effect of okra waste meal as a source of fiber in feed on the digestive organs of quail at different cage temperatures

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ABSTRACT

This study aimed to determine the effect of adding okra waste flour to feed on the digestive organs of quail (Coturnix coturnix japonica) under different cage temperatures. The research employed a Completely Randomized Design (CRD) with a factorial pattern consisting of two treatment factors: cage temperature (28°C as room temperature and 31°C as heat stress temperature) and levels of okra waste flour supplementation (0%, 1%, 2%, and 3%), with three replications and eight quails per experimental unit. The observed parameters included the weight and length of digestive organs such as the proventriculus, gizzard, small intestine, large intestine, cecum, pancreas, and liver. The results showed that cage temperature had a significant effect on the weight of the proventriculus and the length of the pancreas, where quails kept at 31°C exhibited reduced organ size compared to those at 28°C. Meanwhile, the addition of okra waste flour did not have a significant effect on any of the observed digestive organ parameters. Furthermore, no significant interaction was found between cage temperature and okra waste flour supplementation. The conclusion of the study shows that too high a temperature can reduce the function of the digestive organs. For the addition of okra waste flour up to 3% in the feed still maintains the stability of the digestive organs of quail.

Keywords: Okra, crude fiber, digestive organs, laying quail