The Balancing of Safflower Oil and Inositol to Intestinal Morphometric of Sentul Chicken

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Abstract	This study was aimed to evaluate the use of safflower oil (Carthamus tinctorius L) and inositol on the digestive profile of male Sentul chickens. A total of 182 Sentul chickens aged 17 weeks were reared up to 23 weeks in 91 units of battery cage (6 chickens/unit). The research was conducted in a Completely Randomized Design (CRD) with nine treatments and three replicates (6 chickens/replicate). The research treatments were R0 = control/ basal feed + 0% Safflower and 0% Inositol; R1 = Basal feed + 0.5% Safflower oil; R2 = Basal feed + 1.0% Safflower oil; R3 = Basal feed + 0.5% Inositol; R4 = Basal feed + 1.0% Inositol; R5 = Basal feed + 0.5% Safflower oil and 0.5% Inositol; R6 = Basal feed + 0.5% Safflower oil and 1.0% Inositol; R7 = Basal feed + 1.0% Safflower oil and 0.5% Inositol; R8 = Basal feed + 1.0% Safflower oil and 1.0% Inositol. Basal feed was composed of corn, rice bran, soybean kernel, fishmeal, palm oil, calcium carbonate (CaCO3), topmix, lysine, and methionine, as well as safflower oil (Carthamus tinctorius L) and inositol. The measured variable consists of digestive profile (the percentage of intestine weight, digesta, proventriculus, gizzard) and intestine length, crypt depth, the width and length of intestinal villi, Intestinal histology profile. The data were subjected to a statistical analysis of variance (ANOVA) continued with an Honestly Significant Difference test (HSD). The result showed that incorporating safflower oil (Carthamus tinctorius L) and inositol into feed did not significantly affect (P>0.05) the digestive profile of Male Sentul chickens. Conclusively, safflower oil and inositol up to 1% in the feed are safe for male Sentul chickens without interfering with the performance of digestive organs because it produces relatively similar intestinal weight and length, crypt depth, as well as the length and width of intestinal villi.
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