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The Effects of different processes of African Yam Bean (Spenostylis stenocarpa) the chemical composition on blood profile of Broiler Chickens

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A ten-week feeding trial was conducted at the Poultry Unit of the Teaching and Research Farm, Ambrose Al University 10 evaluates the chemical composition of processed African Yam Bean (Sphenostylis stenocarpa) seeds meal and its effect on the serum and haematological properties of one hundred and twenty (120) day old CHI broiler chickens. Thirty chicks were selected randomly based on their average initial weight to each of the four treatment diets. Each group contained three replicates with ten birds per replicate and they were assigned to the four dietary treatment (Ly, To, Ts and T4) with T; serving as the control, while Tz to Ty had an inclusion level of the i African Yam Bean (Sphenostylis stenocarpa) seeds meal (PAYBSM) at 50, 75 and 100% respectively in a complete randomized design (CRD). The chicks were brooded and fed for two an acclimatization period with commercial starter dict before the commencement of lb treatment diets for eight week [ceding periods. The result on the proximate composition showed an increase (21.53%) in the crude protein content of the parboiled sundried African yam bean seed meal (PAYBSM) compared to the raw sample (19.37%) and also comparable energy + value was observed between the parboiled and the raw sample. The rognlt of the phytochemical analysis showed a reduction in the Oxalate, trypsin inhibitors and Hydrogen cyanide of the parboiled sample compared to the raw sample. The result of the hematological parameters of broiler chickens at the finishing phase showed significant ($P<0.05$) variation in hemoglobin (11.90g/dl), Red blood cell (3.11 X10%/L), and white blood cell (57.30 x10°mm?®) with highest values from birds fed 100% comparable to those on 75% (PAYBSM). RDW, Platelet, MPV, PDW, Neutrophils, and monocyte values also showed significant variation among birds fed the treatment diets. Serum biochemical indices of broiler chickens fed the dietary treatment revealed a significant variations ($P<0.05$) in the Albumin value (2.53 g/dL) among broiler chickens placed on 100% (PAYBSM). Glucose and cholesterol values were least among those on 100% (PAYBSM). Urca value also showed a significant ($P < 0.05$) variation among birds fed the treatment diets. The overall result in this study showed that parboiled sundried African yam bean seed meal can successfully be included in broiler ration up to 100% level without any adverse effect on the blood quality of broiler chickens.

Recent Publications:

1. Ehebha, E. T. E and Eguaoje, A. S. (2019). Hematological indices of broiler chickens fed graded levels of parboiled sun-dried African breadfruit (Treculia Africana) seed meal based diets.

2. Ehebha, E. T. E and Eguaoje, A. S. (2019). Serological parameters of broiler finishers fed processed African breadfruit (Treculia africana) seed meal-based diet.

3. Ehebha, E. T. E., Adomeh, E. E.and Eguaoje, A. S. (2018). Growth performance of weaner pigs fed graded levels of sun-dried cassava peel meal.

4. Ehebha, E. T. E.anf Okosun, S. E. (2017). Hematology and serum biochemical induces of broiler chickens raised with different sources of drinking water.

5. Okosun, S. E, Ehebha, E. T. E.and Okoh, P. I.(2017). Growth response of broiler finishers fed graded levels of bitter melon(Momordica charantia) leaf meal-based diets.

Biography

Ehebha Eromosele Theophilus is from Ambrose Alli University, Nigeria and he attended many international conferences and has published many articles in journals.

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