

Blood chemistry, haematological indices and nutrient digestibility of starter turkeys fed macaroni waste meal as a replacement for maize

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Abstract

A 56-days experiment was carried out to study the effect of replacing macaroni waste meal (MWM) with maize on nutrient digestibility and blood chemistry of indigenous turkey starter. Ninety-six indigenous turkey poults with an average weight of 52 g were randomly assigned to four dietary treatments containing macaroni waste meal at 0%, 15%, 30% and 45% level as replacement for maize. Each treatment consist of 24 turkey poults replicated thrice with 8 turkeys per replicate. A three day metabolic study trial was carried out for nutrient digestibility determination. Blood samples were also collected for serum and haematological indices. Data collected were subjected to one way analysis of variance. Result showed that MWM at 15% had the highest values for packed cell volume, red blood cell, white blood cell while values recorded for serum uric acid and creatinine were significantly lower ($P < 0.05$) for the turkeys. The nutrient digestibility coefficient such as crude protein digestibility, nitrogen retention were not affected significantly ($P > 0.05$). However, the packed cell volume, red blood cell count, albumin, hemoglobin, total serum protein and serum glucose. It can be concluded that MWM could be incorporated into the diet of indigenous turkey starter at 15% level without any deleterious effect on nutrient digestibility and blood chemistry.

Keywords: Nutrient digestibility, Blood chemistry