EFFECT OF SUPPLEMENTING A CASSAVA-BASED DIET WITH MICROBIAL ENZYMES ON PERFORMANCE, CARCASS ATTRIBUTES AND STARCH DIGESTIBILITY IN BROILER CHICKENS

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A broiler trial was conducted to study the effect of supplementing a cassava meal (CM)-based diet with exogenous feed enzymes on performance, carcass attributes and starch digestibility. Basal diets (BD) were prepared with inclusion of 35% CM with similar concentrations of all nutrients to a corn-SBM reference diet (RD) containing commercial levels of nutrients. AME in BD diet was down-specified by 80 kcal/kg compared to RD. The BD were either supplemented with three microbial carbohydrase combinations (C1, C2 and C3; different combinations of xylanase, glucanase, amylase, and pectinase), or without microbial carbohydrase as a control.  A total of 1250 one-day-old male Cobb-400 broiler chicks were randomly distributed to 50 floor pens at the rate of 25 birds in each. Each diet was offered *ad libitum* to 10 replicates per treatment from 1 to 35 days of age. Body weight gain, feed intake and carcass attributes (dressing yield, relative weights of breast meat, liver, abdominal fat) were not affected (P>0.05) by dietary treatments at 35 days. Feed efficiency improved (P<0.05) with C2 supplementation to CM based diets compared with the BD. At the jejunal level, all enzyme combinations increased (P<0.05) starch digestibility compared with the BD. However, at the ileal level, only C1 and C2 increased (P<0.05) starch digestibility. It can be concluded that cassava-based broiler diets are responsive to certain carbohydrase composites. The significant improvement in feed efficiency associated with carbohydrase addition to the cassava-based diet may be partly due to increased starch digestibility and starch digestion rate.

Key words: Enzyme, cassava, broiler