

Preeda Kumsri 2009: Effect of Cassava Pulp on Physical Characteristic of Feed, Broiler Performance and Carcass Trait. Master of Science (Animal Nutrition and Feed Technology), Major Field: Animal Nutrition and Feed Technology, Department of Animal Science. Thesis Advisor: Assistant Professor Yuwares Ruangpanit, Ph.D. 88 pages.

A series of experiment were conducted to study the utilization of cassava pulp in broiler diet. Experiment 1 was conducted to determine chemical, physical and biological characteristics of cassava pulp. The represent cassava pulp had low protein and fat content but high in fiber. The starch content was 47 %. This cassava pulp had 1.66 ppm hydrogen cyanide and had low contamination of mycotoxin. Apparent metabolizable energy (AME_n) apparent nitrogen retention (ANR) and apparent fat digestibility (AFD) of cassava pulp were 2363.04 Kcal/kg, 62.19 and 93.16 % respectively. Experiment 2 was conducted to determine effect of cassava pulp and feedform on nutrient digestibility, physical characteristic of diet, broiler performance and carcass trait using the factorial in completely randomized design. The dietary treatments were diet containing cassava pulp 0, 5 and 10% in mash form (T1, T2 and T3) and diet containing cassava pulp 0, 5 and 10% in pellet form (T4, T5 and T6). Three hundred Ross-308, 21 day of age, were divided into 6 treatments. Each treatment consisted of six replications with 10 broilers per replication. Results indicated that there was no interaction of diet on ANR, AFD and AME_n of experimental diets ($P>0.05$). The level of cassava pulp had no significant effect on nutrient digestibility ($P>0.05$). However birds received pellet feed had significant higher nutrient digestibility than those of birds consumed mash feed ($P<0.05$). Diet containing cassava pulp had significant lower bulk density and angle of repose than that of the group containing 0% cassava pulp ($P<0.05$). For broiler performance and carcass trait measurment, one thousand and eight hundred Ross-308, 1 day of age, were divided into 6 treatments. Each treatment consisted of six replications (3 males and 3 females) with fifty broilers per replication. The dietary treatments were as in nutrient digestibility experimental. There was no interaction effect of cassava pulp level and feed form on overall broiler performances and carcass trait. Cassava pulp could be incorporated up to 5% in starter diet and 10% in grower and finisher diet with no detrimental effect on overall broiler performance and carcass trait ($P>0.05$). However birds received pellet feed had higher weight gain, feed intake and carcass trait than that of birds consuming mash feed ($P<0.05$).

Student's signature

Thesis Advisor's signature