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Broiler meat yield and its quality under natural grain feeding regimens

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To respond to consumers' and wholesalers' demands for the poultry niche market, this study assessed a corn grain feeding approach to compare carcass yield and physiochemical properties of meat in broiler. An experiment was used to compare various feeding patterns to broiler birds using four hundred unsexed broilers. Birds were distributed into four treatment groups (100 birds each) subdivided into 20 replicates with 20 birds each. The four treatments within the study were: 1) commercial diet (control); 2) Control diet (75%) +25% grains; 3) Control diet (50%) +grains (50%); 4) Control diet (25%) + grains (75%). At 56 days of age, five broilers from each group were processed to meat yield and its quality in terms of average weights and carcass yields from breasts, wings, and leg quarters, meat pH, color and sensory attributes. Data was analyzed using SAS 9.4 through one-way ANOVA by applying Duncan's Multiple Range test. Results showed that carcass and cut-up part weights were significantly lower ($P<0.05$) in all grain fed groups (avg. $3217\text{g}\pm 32.78$) compared to control ones (avg. $3371\text{g}\pm 29.11$). But, the quality was much improved ($P<0.05$) in treatment 4. Birds consuming 75% grains as diet had more appealing appearance ($L^*=52.54\pm 0.32$ and $a^*=6.36\pm 0.29$) than any other group. Additionally, panel gave maximum hedonic score to the meat from birds of treatment 4. It was concluded that natural grain feeding regimens should be encouraged with conventional feed for better meat quality.

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