

564 **Effect of pearl millet in broiler diets fed until 21 days of age: Carcass characteristics and organ weights.** T. R. Torres¹, M. C. M. M. Ludke*¹, J. V. Ludke², E. J. O. Souza³, M. R. Lima¹, J. E. Serafim¹, and G. M. Silva¹, ¹Universidade Federal Rural de Pernambuco, Recife, Pernambuco, Brasil, ²Embrapa Suínos e Aves, Concórdia, Santa Catarina, Brasil, ³UAST - Universidade Federal Rural de Pernambuco, Serra Talhada, Pernambuco, Brasil.

A trial was established to evaluate the effect of diet type (DT) presented in 2 physical forms (PF) fed to broilers. Six treatments were established with 3 diets (CSM: corn soybean meal diet, WMG: diet with 20% whole millet grain or GMG: diet with 20% ground millet grain) either in mash (MSH) or pellet (PEL) form. The trial lasted 21 d with 300 Ross male broilers being used ($n = 5/\text{treatment}$, 10 birds/replicate). Diet Apparent Metabolizable Energy (AME, Kcal/kg) and crude protein (CP) from 1 to 7 were 3,000 and 22.1%, respectively. From d 8 to 21 the AME value was changed to 3,050 with 21.1% CP. At 21 d of age one bird per replicate, representing plot average weight, was slaughtered. Live weight was not different ($P \geq 0.05$) between DT with average values of 959 g for CSM; 938 g for WMG and 938 g for GMG. Diet PF had only a slight effect ($P = 0.057$) on weight with 931 g for MSH and 959 g for PEL diets. Carcass weight was affected ($P \leq 0.05$) by PF with values of 710 g for MSH and 730 g for PEL. Carcass yield and carcass parts (leg + thigh, chest, wings and drumstick) were not affected ($P \geq 0.05$) by treatments. Liver, pancreas, lung, spleen and intestines weight expressed as percentage of live weight were not affected ($P \geq 0.05$). Heart and gizzard percentages were affected ($P \leq 0.05$) only by PF with MSH and PEL diets having gizzard percentages of 2.87% x 2.62%, respectively. Heart percentage values were 0.80% for MSH diets and 0.67% for PEL diets. Total abdominal fat weight and percentage were only affected by DT ($P = 0.025$ and $P = 0.018$, respectively) with values of 18.4 g and 1.83% for WMG, 18.6 g and 1.88% for GMG, 13.9 g and 1.39% for CSM diet. Use of MSH diets resulted in higher gizzard and heart percentages. The use of millet at 20% level in the diets resulted in higher abdominal fat. Physical form of diet had effect of internal organs while the use of millet in diets had effect on broiler fat deposition.

Key Words: alternative feedstuffs, diet physical form, whole and ground millet