

## Performance and carcass characteristics of broilers fed with hominy feed

Edjane V. A. Nascimento<sup>1</sup>, Maria C. M. M. Ludke\*<sup>1</sup>, Jorge V. Ludke<sup>2</sup>, Priscila S. Pereira<sup>1</sup>,  
Carlos B. V. Rabello<sup>1</sup>, Arlei Coldebella<sup>2</sup>

<sup>1</sup>Universidade Federal Rural de Pernambuco, Recife, Pernambuco, Brasil;

<sup>2</sup>Embrapa Suínos e Aves, Concórdia, Santa Catarina, Brasil;

\*[mohauptmariadocarmo@gmail.com](mailto:mohauptmariadocarmo@gmail.com)

Multiple technological processing differences in Brazilian corn industry provide a hugeness of by-products which may be suitable to use in broiler feed. The aim of the research was evaluate broiler performance, carcass and main cut yields and organ weights due to increasing levels of hominy feed (FRM) in diets. Two hundred and seventy broilers of Cobb-500 lineage, males, from eight to forty-two days old, were housed in 30 boxes and distributed in a randomized block design with five treatments and six replications containing nine uniform birds per plot. Treatments consisted of FRM increasing levels (0, 130, 260, 390 and 520 g kg<sup>-1</sup>) in mash diets. Diets were formulated isonutritional in initial (eight to 21 days), growth (22 to 35 days) or finish (36 to 42 days) phase. The assessed variables were: live weight (LW), feed intake (FI), weight gain (WG) and feed conversion ratio (FCR) from eight to 21 days, eight to 35 days and eight to 42 days. At end of feed trial two broilers, with weight closest to the average weight of each plot, were slaughtered for evaluation of carcass characteristics, main cut yields and organs weight. The composition of the FRM was (g kg<sup>-1</sup> as is): DM (883.3), CP (102.3), EE (154.4), MM (43.3), CF (65.4) and Starch (336). The analyzed GE and previous experimental evaluated AMEn values were, respectively, 4,550 and 3,241 Kcal kg<sup>-1</sup>. Amino acid profile was estimated through NIR. Quadratic effects (P<0.050) were observed for the following parameters: LW at 21 and 35 days, WG and FCR from eight to 21 and eight to 35 days, FI and FCR from eight to 42 days. The estimates for LW at 21 and 35 days on optimal FRM inclusion levels (respectively, 90.5 and 105.8 g kg<sup>-1</sup>) were 1115 g and 2281 g. For WG from eight to 21 days and eight to 35 days the optimal FRM levels were close to those for LW. Optimal FRM inclusion levels for FCR were 195, 230 and 147.5 g kg<sup>-1</sup>, respectively, for the cumulative periods until 21, 35 and 42 days. Considering eight to 42 days the optimal FRM level estimated for minimum FI (4501 g) was 86 g kg<sup>-1</sup>. At the end of the feed trial there were no effect (P>0.050) of FRM levels on LW (with overall mean of 2797 g), carcass yield and main carcass cuts but, there was an increasing linear effect (P<0.050) for gizzard weight. Considering all performance evaluated parameters and carcass traits the FRM inclusion level of 147.5 g kg<sup>-1</sup> in broiler diet from eight to 42 days is recommended.

**Keywords:** alternative feedstuffs, carcass and main cut yields, corn by-product, poultry

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