

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## **SUBSTITUTION OF METHIONINE BY CHOLINE IN DIETS FOR MEAT-TYPE QUAILS FROM 15- 35 DAYS OF AGE**

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The objective of this study was to determine the best level of partial substitution of digestible methionine (Metd) by choline (CHO) in diet for meat-type quails (*Coturnix coturnix coturnix*) in periods from 15-35 days old. The experiment was carried out in accordance with the standards of the Ethics Committee on Animal Experimentation of UEM (Protocol nº 071/2013). 1,680 not sexed birds were raised in the conventional system until of beginning of the experiment. The animals were distributed in a completely randomized design, in a 4x4 factorial arrangement with four Metd levels (0.45, 0.51, 0.57 and 0.63%) and four CHO levels (300, 800, 1300 and 1800 mg/kg), totaling 16 treatments with three replicates and 35 quails per experimental unit. Quails were fed rations prepared to meet nutritional requirements based on corn and soybean meal, using previously determined aminograms. To meet the cystine requirement of the diet was used L-cystine. Different levels of digestible methionine and choline were used in the diets using DL-methionine and choline chloride. Quails and rations were weighed weekly to obtain the values of average weight (BW), weight gain (WG), feed intake (FI), feed conversion (FC) and accumulated body biomass (ABB) of birds. Data of the experiment were analyzed by polynomial regression using the SAS software (SAS Inst. Inc., Cary, NC). The BW, WG and ABB were linearly influenced in function increasing Metd levels (BW, P=0.014), (WG, P=0.010), (ABB, P=0.013) and CHO (BW, P=0.047), (WG, P=0.034), (ABB, P=0.030) in the experimental diets, occurring interaction between the Metd and CHO levels, on BW (P=0.053), WG (P=0.039) and ABB (P=0.035). It is concluded that the requirement of Metd for maximum performance of meat-type quails, in the period from 15 to 35 days old, was at least 0.63% of Metd/kg diet. In the supplemented levels of CHO, it has not been possible to promote the completion of the Metd requirement.

**Keywords:** amino acids, cystine, *Coturnix coturnix coturnix*, performance

Promoção e Realização:



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