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Poultry farming

Nutritional requirement of methionine + cystine in diets for Japanese quails in the laying phase

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Quails originate in North Africa, Europe and Asia. There were already records of wild quails in Brazilian territory around 1950, registering the first specimens of genetically improved quails. The breeding of Japanese quail (Coturnix coturnix japonica) is currently expanding in the country due to its high egg production, precocity of production, resistance to diseases and longevity. Due to this expansion of Coturniculture, it is necessary to have more research focused on breeding techniques, nutritional programs for each stage of development of these birds, taking into account their nutritional requirements. This experiment evaluated the nutritional requirement of digestible methionine + cystine in diets for Japanese quails from 60 to 88 days of age under ceua-ufrpe license no. approximately 190 g. housed in metal cages arranged in batteries and each cage was divided into three boxes, each box represented an experimental plot, each plot containing seven birds, totaling 25 experimental plots. The birds were fed daily with 200 grams of feed per plot and leftover feed was collected and weighed to account for daily feed consumption. Water was provided ad libitum through nipple drinkers. The treatments consisted of five levels of digestible methionine + cystine in the diets (0.742; 0.842; 0.942; 1.042 and 1.142%) with isocaloric and isolysine diets, with variations in the levels of digestible methionine used to achieve the proposed levels of digestible methionine + cystine. for this experiment. The variables evaluated were: average daily feed consumption per bird, average egg weight, egg mass, laying percentage, feed conversion per mass and feed conversion per dozen eggs in a cycle of collection and evaluation, with the cycle lasting 28 days. Statistical differences ($P<0.05$) were observed for the variables number of eggs, number of dozens, laying percentage, egg mass, feed conversion per mass and per dozen, in the experimental period. It was concluded that the best level of methionine + cystine in diets for Japanese quails (Coturnix coturnix japonica) in the laying phase (from 60 to 88 days) is 1.063% to provide the best production rates, indicating the best methionine + cystine:lysine as 0.92% and consumption of 299 mg/bird of digestible methionine + cystine/day.

Keywords: digestible amino acids, quail, posture, nutritional requirements