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Bromatological analysis of dry dog food for adult dogs of different commercial categories

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Commercial categories of dog and cat food differ greatly in price, mainly due to the quality of the raw materials used and the nutritional composition. Correct knowledge of the nutritional values of pet foods becomes essential for decision-making when purchasing a commercial diet, as overfeeding or deficiencies in nutrition are linked to various metabolic diseases. The aim was to evaluate the bromatological composition of industrialized dry dog food for adult dogs, in the super premium, premium, standard, and economy categories. Four categories of food (treatments) and four different brands (repetitions) were used, totaling 16 evaluated foods. The foods were ground in a mill with a 1mm sieve and processed in duplicate in the Animal Nutrition laboratory of UFAL/Campus Arapiraca, to determine the levels of moisture, crude protein, ether extract, ash, and crude fiber, all based on dry matter. The data were submitted to Tukey's test, at 5% probability, using the SAEG software (2007). There was no difference in moisture and ash content among the categories of the evaluated foods, all within the maximum limit of 12%, as established by Brazilian legislation. The ether extract of all foods was above the minimum of 4.5%; however, the super premium food showed an average of 14.73%, differing from the other treatments, which had averages of 8.95%, 7.17%, and 6.05% for the premium, standard, and economy categories, respectively. There was no difference in crude protein values between the super premium and premium categories, which had averages of 27.22% and 25.74%, respectively. However, these values are higher than those found in the standard and economy categories, which had averages of 22.29% and 22.58%, respectively. For crude fiber, which has a maximum limit of 6.5%, all diets were satisfactory. However, the super premium (5.38%) and premium (4.46%) categories had higher values compared to the standard (2.05%) and economy (3.49%) categories. The averages of all evaluated categories were within the minimum or maximum nutritional requirements established by Brazilian legislation; however, for dogs and cats, the levels of ether extract and crude protein tend to be beneficial in quantities above the nutritional requirement, to meet the optimal nutritional demand of the animal and not just the minimum requirement. Furthermore, for determining the quality of protein, the biological value of the protein should be taken into account and not just the values of crude protein. It is concluded that dry dog food for adult dogs in the super premium category has bromatological values similar to premium foods, except for ether extract, and higher than standard and economy categories. However, all categories meet the minimum nutritional requirements for adult dogs.
Keywords: ether extract, nutrients, pet, protein