

Title: MICROBIOLOGICAL QUALITY OF BULK FOOD AT A STORE OF SANTA MARIA CITY - RS

Authors Barreto, A.R.¹, Rodrigues, L.Z.¹, Ramírez-Mérida, L.G.^{2,1}, Menezes, C.R.¹

Institution¹Food Science and Technology Department, Federal University of Santa Maria, UFSM, Roraima Avenue 1000, 97105-900, Santa Maria, RS, Brazil.

²Applied Biotechnology Center, Department of Biology, University of Carabobo, Universidad Avenue, 2002, Valencia, Edo. Carabobo, Venezuela.

Abstract:

The Brazilian industry has one of the highest growth rates in the production of pet foods, and has been improving its production processes and products to ensure a safe food. With an increasingly demanding consumer about the quality of food consumed by their pets, are sought safe food that can ensure the health of the animal and public health conditions. The aim of this study was to evaluate the detection of microorganisms of quality indicators in dry food marketed in bulk samples. Adopted analysis methodologies followed the Normative Instruction No. 62 of 2003 of the Ministry of Agriculture, Livestock and Supply - MAPA. They collected five samples of food for adult dogs with higher sales volume harvested in one of the main stores in the city of Santa Maria-RS, packed in airtight packaging and transported refrigerated to the laboratory for their respective analysis. Of each sample were weighed 25g and added to 225mL of peptone water in packaging itself to homogenize samples, which remained in the stomacher homogenization for 5 minutes were carried serial dilutions which were used for determination of aerobic mesophilic, total coliforms, molds and yeasts. For mesophilic aerobes and total coliforms were added PCA and VRB media, overlaying this with the plates incubated at 35°C for 48 hours. For yeast and mold surface held in the petri dishes were previously prepared with PDA medium pH 3.4 incubated at 25°C for 168 hours. It can be seen that for aerobic mesophilic the largest value was $2,6 \times 10^6$ CFU/g, total coliforms $3,6 \times 10^9$ CFU/g for molds and yeasts $2,6 \times 10^{10}$ CFU/g. The values found for molds and yeasts are unacceptable according to the Brazilian Compendium of Animal Nutrition, which considers unacceptable levels above 10^4 CFU/g. As well as mesophilic aerobic and total coliforms are also considered high. From the data found in this study it can be said that the analyzed rations are not safe for animal consumption. The data show that the products could be susceptible to mycotoxins and that would have the ability to cause public health risks.

Keywords: microbiological indicator, quality, pet food