MICROBIOLOGICAL SAFETY ASSESSMENT OF DRY FOODS FOR DOGS AND CATS SOLD IN DIFFERENT COUNTRIES

Karina Koerich de Souza, Marcelina Bottoni Horn, Denise Castagnaro, Vildes Maria Scussel. Food Science and Technology Department, Center of Agricultural Sciences, Federal University of Santa Catarina - UFSC, Rod. Admar Gonzaga 1346, 88.034-001 Florianopolis, Santa Catarina, Brazil. www.labmico.ufsc.br

Safety and quality of dogs and cats food are the primary concern for manufacturers. The microbiological contamination (fungi, yeasts and bacteria) is indicator of the food sanitary quality and safety. The aim of the study was to verify microbiological growth and some important environmental factors for their development in dry pet foods commercialized in different countries. Fifty-two (52) samples of dry pet foods packages (0.14 to 2 kg) for dogs (n= 37) and cats (n= 15) commercialized in supermarkets and pet shops in Brazil (n=26), Canada (n=7), Mexico (n=3) and Europe (n=16) were analyzed for bacteriological counts of yeasts and molds (APHA, 1992), E. coli (AOAC, 2005), total mesophiles (MCT), total coliform (TC), sulphite-reducing Clostridium and Salmonella spp. (BRAZIL, 2003). Moisture content (mc) and water activity determination (a_w) were also analyzed. From the microbiological data obtained, 36 samples (68%) contained <10 CFU/g of MCT and all samples with less than <10 CFU/g of sulphite-reducing Clostridium, E. coli and TC. Salmonella spp. was not isolated. About counts of yeasts and molds, 37 samples (71%) contained <100 and 15 samples (29%) with ≥ 10^2 CFU/g. Analyzing the results of environmental factors, were obtained low mc (ranged to 5.98 to 15.87%) and low a_w (0.893 and 0.482) in these samples. Comparing the results obtained in the microbiological analysis with legislation of these countries, all samples showed acceptable results for bacteria and fungi, probably in recurrence of low mc and a_w, indicating food quality and safety of samples analyzed.