

Article

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EFFECT OF STORAGE CONDITIONS ON MDA LEVELS OF DIFFERENT CLASS AND TYPE OF DRY DOG FOOD

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Abstract

The aim of this study was the determination of malondialdehyde (MDA) changes of 20 dry types of premium (P) and economic class (E) commercial dog foods at different stocking temperatures (4 0C, 20 0C, 35 0C) and different stocking times (3, 6, and 12months). At the time of purchase, MDA concentrations of premium dry type foods were lower than those of economic class. The MDA concentrations of dog food increased with the progress of stocking times at increasing temperatures. In the 10th month of stocking, the MDA levels was significantly higher, up to 6 times at a temperature of 35 and a storage time of 10 months compared to the concentration at the time of purchase. Malondialdehyde, often known as MDA, is the result of the oxidation of polyunsaturated fatty acids in food during cooking and storage. Cellular proteins can react with MDA from the body and from ingested sources and the reaction products are considered harmful.

Key words: dry dog food, MDA concentration, storage condition
