

Title Cholesterol oxide, cholesterol, total lipid and fatty acid contents in processed meat products during storage

Author S.R. Baggio and N. Bragagnolo

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Abstract

The effects of storage time on the formation of cholesterol oxides and on alterations in the fatty acid composition of processed meat products manufactured by Brazilian industries were investigated in this study. Cholesterol oxides and cholesterol were determined by HPLC using photodiode array and refractive index detectors. Samples of jerked beef, Italian-type salami, chicken mortadella and Chester mortadella were analysed at 30 day intervals starting at zero time, for 90 days for the mortadella and 120 days for the jerked beef and salami. The mortadellas were stored under refrigeration at 6 °C and the jerked beef and salami at room temperature, but protected from the light. No cholesterol oxides were formed during the storage time in any of the samples. The cholesterol content, the fatty acid composition and total lipid contents showed no significant differences during storage with the exception of the total lipid content of the jerked beef, which varied from 3.5 at zero time to 2.4 g/100 g after 120 days storage.