

Title Photoxidation of cholesterol and lipids of turkey meat during storage under commercial retail conditions

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Abstract

Photoxidation of cholesterol and lipids of raw turkey patties packed in vessels with transparent shrink film was studied during storage at 4 °C under commercial retail conditions. Two different storage periods were applied: a 3-day storage and a 11-day storage. When meat was stored in the dark at 4 °C, the maximum peroxide number was reached after 5 days and the maximum concentration of cholesterol oxidation products was attained only after 7 days. Turkey meat exposed to the white fluorescent light (under a daylight lamp) showed a maximum COPs concentration and peroxide value after just 1 day of storage (12 h effective light exposure). A lamp with low emission in the blue band (warm-tone lamp) was useful for lowering peroxidation and cholesterol oxidation, thus being a suitable solution for the exhibition of meat products in supermarkets or meat processing industries.