

Relevance of nanocomposite packaging on the stability of vacuum-packed dry cured ham

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Abstract

In this study effects of a novel high barrier multilayer polyamide film containing dispersed nanoclays (PA_N) on the stability of vacuum packed dry-cured ham were investigated during 90 days refrigerated storage in comparison with non-modified multilayer polyamide (PA) and a commercial high barrier film. Characteristic bands of the mineral in FT-IR spectra confirmed the presence of nanoclays in PA_N, enhancing oxygen transmission barrier properties and UV protection. Packaging in PA_N films did not originate significant changes on colour or lipid oxidation during prolonged storage of vacuum-packed dry-cured ham. Larger oxygen transmission rates in PA films caused changes in CIE *b** during refrigerated storage. Ham quality was not affected by light exposition during 90 days and only curing had a significant benefit on colour and TBARS, being cured samples more stable during storage in all the packages used. Packaging of dry-cured ham in PA_N was equivalent to commercial high barrier films.