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Sensory and Microbiological Sustainability of Smoked Meat Products–Smoked Ham in Order to Determine the Shelf-Life under the Changed Conditions at +15°C

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Abstract : The meat is in the group of perishable food which can be spoiled very rapidly if stored at room temperature. Salting in combination with smoke is intended to extend shelf life, and also to form the specific taste, odor and color. The smoke do not affect only on taste and flavor of the product, it has a bactericidal and oxidative effect and that is the reason because smoked products are less susceptible to oxidation and decay processes. According to mentioned the goal of this study was to evaluate shelf life of smoked ham, which is stored in conditions of high temperature (+15 °C). For the purposes of this study analyzes were conducted on eight samples of smoked ham every 7th day from the day of reception until 21st day. During this period, smoked ham is subjected to sensory analysis (appearance, odor, taste, color, aroma) and bacteriological analyzes (Listeria monocytogenes, Salmonella spp. and yeasts and molds) according to Serbian state regulation. All analyses were tested according to ISO methodology: sensory analysis ISO 6658, Listeria monocytogenes ISO 11 290-1, Salmonella spp ISO 6579 and yeasts and molds ISO 21527-2. Results of sensory analysis of smoked ham indicating that the samples after the first seven days of storage showed visual changes at the surface in the form of allocations of salt, most likely due to the process of drying out the internal parts of the product. The sample, after fifteen days of storage had intensive exterior changes, but the taste was still acceptable. Between the fifteenth and twenty-first day of storage, there is an unacceptable change on the surface and inside of the product and the occurrence of molds and yeasts but neither one analyzed pathogen was found. Based on the obtained results it can be concluded that this type of product cannot be stored for more than seven days at an elevated temperature of +15°C because there are a visual changes that would certainly have influence on decision of customers when purchase of this product is concerned.

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