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COMPARISON OF DIFFERENTE TESTS FOR TEXTURE CHARACTERISTICS ASESSMENT OF DRY FERMENTED SAUSAGES

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Dry-fermented sausage *Petrovska klobasa* is traditionally manufactured during winter, within village households, undergoing slow drying and ripening processes. In traditional process fermentation is guided by indigenous microflora, but for the production in different processing condition addition of starter culture could be of great interest to ensure standard quality of final product. Texture characteristics are of great importance for sausage quality, and are affected by numerous factors. Sensory analysis for texture evaluation is only suitable for the final product so, instrumental measurements are especially interesting for texture evaluation during the processes of ripening and drying.

The aim of this study was to determine the influence of starter culture addition on texture characteristics of dry-fermented sausage, and to determine correlation between two mostly used instrumental methods for assessing texture characteristics of sausages: Warner–Bratzler and texture profile analysis during ripening and drying of dry fermented sausages produced in traditional manner (C), and with starter culture addition (SC). The sausages were produced from minced lean pork meat, pork fat and seasonings, and were stuffed in collagen casings. Production in traditional conditions lasted for 90 days and samples for texture analyses were taken after 2, 9, 15, 30, 60 and 90 days of processing.

The starter culture addition had no significant impact on the firmness, hardness and chewiness but at the end of ripening period CS sausages were higher in hardness and chewiness, and lower in firmness comparing with C sausages. No significant differences in texture characteristics could result from thermo-hygrometric conditions in traditional production, i.e. low atmospheric temperature did not facilitate the growth of added starter culture.

Correlation between firmness and hardness was very low, a bit higher was correlation between firmness and chewiness. Both correlations were higher for SC sausages comparing to C sausages.

Keywords: Dry fermented sausage, Warner–Bratzler test, Texture profile analysis

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