

Proteolysis in Serbian Traditional Dry Fermented Sausage Petrovska Klobasa as Influenced by Different Ripening Processes

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Abstract : The aim of the study was to determine how different ripening processes (traditional vs. industrial) influenced the proteolysis in traditional Serbian dry-fermented sausage Petrovska klobasa. The obtained results indicated more intensive pH decline (0.7 units after 9 days) in industrially ripened products (I), what had a positive impact on drying process and proteolytic changes in these samples. Thus, moisture content in I sausages was lower at each sampling time, amounting 24.7% at the end of production period (90 days). Likewise, the process of proteolysis was more pronounced in I samples, resulting in higher contents of non-protein nitrogen (NPN) and free amino acids nitrogen (FAAN), as well as in faster and more intensive degradation of myosin (≈ 220 kDa), actin (≈ 45 kDa) and other polypeptides during processing. Consequently, the appearance and accumulation of several protein fragments were registered.

Keywords : dry-fermented sausage, Petrovska klobasa, proteolysis, ripening process

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