

Flavor Compounds and Textural Properties of Comminuted Sausages Manufactured with Various Fat Contents

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Fat influences food palatability, such as, flavor and texture. Foods containing fat can provide desirable juiciness and tenderness to consumer due to the ability of water retention. In addition, fat plays an important role for flavor perception of foods, and acts as precursors to produce flavor by interacting carbohydrate and amino acid during heat process. The objective of this study was to evaluate textural properties and volatile compounds from low-fat (<1%) and regular-fat (5-15%) comminuted sausages. The sausages were isolated by simultaneous distillation and solvent extraction (SDE) and each volatile component isolated was analyzed by gas chromatography (GC) and mass spectrometry (MS). Results showed that approximately 53 compounds were isolated from low-fat and regular-fat comminuted sausages. Volatile compounds, such as, pentadecanal and undecenal had higher concentration ($P < 0.05$) in low-fat comminuted sausages rather than in regular-fat counterparts. However, no differences in those compounds were observed ($P > 0.05$) with increased fat level (%). Texture analysis profile (TPA) values of low-fat comminuted sausages were higher ($P < 0.05$) than those of regular-fat counterparts, however TPA values were not different ($P > 0.05$) among regular-fat treatments.