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agric@tubitak.gov.tr

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Effect of Butylated Hydroxytoluene and Butylated Hydroxyanisole on Some Properties of Kidney Fat and Tail Fat During Frozen Storage

Ömür ATAY

Sanayi ve Teknoloji Bakanlığı, Sanayi Araşt. Gen.Müdürlüğü, Ankara- TÜRKİYE A. Hamdi ERTAS

Ankara Üniv. Ziraat Fakültesi, Gıda Mühendisliği Bölümü, Ankara- TÜRKİYE

Abstract: Some physical and chemical properties of kidney fat (obtained from cattle) and tail fat (obtained from sheep) were determined in this study. Effects of butylated hydroxytoluene (BHT), butylated hydroxyanisole (BHA) and BHT+BHA on free fatty acids (FFA) contents, thiobarbituric acid (TBA) values and peroxide number were also examined during frozen storage at -18°C for 9 months. The following values were determined for kidney fat; melting point 47°C, saponification number 193, iodine number 42, refractive index (n D 40) 1.480, unsaponificable material 0.72%, titre degree 44.0°C. The following values were determined for tail fat; melting point 38°C, saponification number 191, iodine number 48, refractive index (n D 40) 1.470, unsaponificable material 0.64%, titre degree 37.5°C. Both antioksidants and storage time were found to be effective on FFA contens of kidney fat and tail fat stored at -18°C for 9 months (P<0.05). The most effective antioksidant for the decrease of the FFA content was BHT in both fat. It was followed by BHT+BHA and BHA. Neither TBA value nor peroxide number could be detected during storage period which meant that oxidative reactions in fats did not start at -18°C for 9 months.

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