

Development of avocado (*Persea americana*) incorporated butter

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The objective of the present study was to develop a butter incorporating avocado (*Persea americana*) pulp. Pre-treated avocado pulp (variety Fuerte) was mixed with raw cow milk and cream to prepare sweet cream butter samples and mixed with salt (1% w/w) and butylated hydroxyl toluene (BHT) 200 ppm. Five types of butter were prepared based on predetermined proportions. These were, T1 (commercial butter): 100% cream and milk, T2: 25% avocado pulp + 75% cream and milk, T3: 30% avocado pulp + 70% cream and milk, T4: 35% avocado pulp + 65% cream and milk and T5: 40% avocado pulp + 60% cream and milk. Hundred millilitres of milk (100 mL) was included in all the treatments. Proximate composition of avocado pulp, physicochemical and microbiological tests of the developed avocado-incorporated butter were determined and compared with conventional butter. The fat content of butter was analysed according to the method described by Analysis of foods (I.S.3507, 1966). Free fatty acid (FFA) values were measured using the IUPAC method. Hardness (texture analyser model 4465, Universal testing systems, Canton, USA), and contents of Cu, Fe (atomic absorption spectroscopy) were measured in the developed butter samples. Sensory analysis was conducted using preference tests based on colour, aroma, flavour, spreadability, mouth feel and overall acceptability of butter using untrained panellists (n = 50). Avocado-incorporated butter showed a significant (P < 0.05) improvement in unsaturated fatty acid composition and mineral content (Cu, Fe) with increment of avocado pulp content from 25 to 40%. There was no significant (P < 0.05) difference in microbiological quality among the treatments. Hardness of avocado-incorporated butter was gradually decreased with increment of avocado pulp content from 25 to 40%. According to the sensory analysis, there was a significant (P < 0.05) difference in colour, flavour, spreadability, mouth feel and overall acceptability in avocado-incorporated butter (T4) but not in aroma. In conclusion, the present study revealed that incorporation of avocado pulp (25%, 30%, 35% and 40%) in butter has significantly improved the sensory and physicochemical properties of butter when compared with conventional butter.