THE EFFECT OF AVOCADO PUREE AS FAT REPLACER ON THE PHYSICAL QUALITY OF MUFFIN

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ABSTRACT

Avocado (*Persea americana*) is a medium energy dense fruit with buttery puree texture. Avocado is high in monounsaturated fatty acids (MUFAs), which can promote healthy blood lipid profiles and regulates blood glucose levels. This study was performed to study the effect of avocado puree as a fat replacer on the physical quality of fat-reduced muffins. During the muffin-making, butter was replaced with avocado puree at a level of 25% (M1), 50% (M2), 75% (M3) and 100% (M4) whilst muffins with 0% addition of avocado puree were used as a control (M0). The effect of butter replacement on the muffin volume, moisture content, muffin texture profile analysis (TPA) and crumb colour were measured. The results showed that addition of the avocado puree has no significant difference (p>0.05) on the weight and height of the M1, M2, M3 and M4 compared to M0. 100% avocado-replacement produced significantly (p<0.05) springy muffin while the hardness, cohesiveness and chewiness of M1, M2, M3 and M4 showed no significant difference (p>0.05) compared to M0. Muffin-added avocado (M1, M2, M3 and M4) also showed to have darker colour of muffin crumb compared to the control muffins. In conclusion, utilization of avocado puree as a fat replacer in reduced-fat muffins production had not significantly (p>0.05) affected the physical properties of muffin. Therefore, avocado can be a natural ingredient for butter replacer in bakery products.

**Key words:** Avocado puree, Fat-reduced muffins, monounsaturated fat, texture profile analysis
(TPA), crumb colour