

Abstract

The peanut (*Arachis hypogea*) is one of the major oil seed crops of high economic value. Almost the entire local production of peanut is supplied to the domestic market as raw pods. In Sri Lanka yet no attention is given for manufacture a peanut based a value added products. Therefore the development of a value added product at small and medium scales would remedy several problems involved in both crop and food industry. Among the peanut based products, peanut butter represents a promising item as there is a big demand of the butter itself and there is a variety of other applications for peanut butter in the food industry. In the context of Sri Lanka peanut butter is yet imported and sold at an approximate of 150 Rs for a 200g block.

A study was carried out to establish a protocol for a low cost peanut butter formula containing locally available raw materials. The study also included a comparative physico chemical analysis of the butter formula and a sensory evaluation of the final product. As raw materials Red Spanish and pink coloured peanuts, potable water, and several other ingredients were used. As equipment a manually operated grinder and a locally invented gas oven were used. Peanut butter samples prepared were packed in jam bottles. Peanut butter preparation was done in seven steps viz. baking, immediate cooling, removing skin and germ, grinding, mixing with ingredients, packing and cooling to 10 °C. Preliminary studies were carried out to detecting proper baking temperature, finding out and quantifying stabilizers to prevent oil separation, determining the effect of germs and skins, and assessing the effect of immediate cooling after filling peanut butter in to containers.

The optimal combinations of temperature for roasting a 2 Kg batch of peanuts were 160 °C for 30 minutes and 150 °C for 40 minutes. As suitable stabilizer hydrogenated vegetable fat gave satisfactory results. Germ and skin of peanuts gave a bitter taste to the peanut butter. In addition the ground skins also, gave a small dark spotted appearance to the butter making it unattractive. Removal of both skin and germ can remedy the problems like bitter taste and unattractive appearance. Immediate cooling of peanut butter after the preparation prevents oil separation of the butter. According to the sensory evaluation the butter samples could be competitive to the imported counter parts.