

Document category : Scopus

Title : Pre-development of ready to eat meat bars for Malaysian submariners

Author : Ab. Aziz N., Hassan M.S.M., Muda S., Sedek R., Abd. Rahim A., Ali A.O.A.

Abstract : The proposal to develop a type of food product for submarine rations, known as meat bar, is based on meal ready to eat (MRE). There are two different types of meat bars that are being developed as part of this research which are made from beef and chicken products. There are three different flavours being developed to give taste to the chicken and beef meat bars, which are sate spice, honey and black pepper. The formulation of the meat bars is being modified and improved to become a tasty final product with optimum quality. To reach a goal of standard formulation, this research depends on the requirements, feedback and sensory evaluation of consumers. Based on preliminary results, two types of formulations are being developed to have a final product which is known as the prototype for meat bars. Besides developing standard formulations, this research is also aimed at choosing the best raw materials of meat between minced meat and fillet meat to be the main raw material to develop the final products. The method for cooking meat bars is also being improved by oven-grilling at 120 °C for 25 minutes (beef or 20 minutes (chicken) using combination oven and pre-heated oven at 150 °C for 20 minutes (beef or 15 minutes (chicken)). The food chemical analysis (proximate analysis) was conducted to study the nutrient contents of the meat bars which include determining moisture (water), ash, fibre, fat and protein contents. At the moment, this test is currently only able to determine the moisture and ash content. However, other laboratory tests will be done later after the standard formulation to produce the prototype is finalized. From the results, it is shown that the moisture content is in the range of 57 to 69% and ash content is 2.9 to 5.4% in meat bar products. The results of the sensory evaluation shows that the first formulation's mean score for all attributes are in the low range of 2 to 6, which can be concluded as "dislike". For second formulation of meat bars, the mean score of sensory evaluation is higher than the first formulation (mean score ranged from 5 to 7). Hence, it can be concluded that the second formulation is acceptable and in average of "like" score.

Subject : Meal ready to eat (MRE); Meat bar; Oven-grilling; Sensory evaluation; Submarine ration

Type : Article

Source title : Defence S and T Technical Bulletin

ISSN : 19856571

ISBN :

Publisher :

Year issue : 2009

Language : English