



2nd International Symposium on Aquatic Products Processing and Health
ISAPPROSH 2015

Effect Different Packaging on Proximate and Lysine Content of Milkfish [*Chanos chanos* (Forsskål, 1775)] Floss During Storage

Ima Wijayanti*, Titi Surti, Apri Dwi Anggo, Eko Susanto

Laboratory of Fisheries Processing Technology, Department of Fisheries, Faculty of Fisheries and Marine Science, Diponegoro University.
Jln. Prof Soedarto, SH, Kampus UNDIP Tembalang Semarang 50275 Indonesia

Abstract

Fish floss was processed by steaming and frying. Different packaging is expected to affect the nutritional changes of milkfish floss during storage. Milkfish floss were packed with different types of packaging (plastic polypropylene bag, polystyrene jar and Aluminium foil stand pouch) and were stored during (0, 20, 40, 60, 80) d at 35 °C temperature. Data was analysed by ANOVA. Type of packaging during storage of 80 d in milkfish floss significantly affect on moisture, protein, fat and lysine content ($P < 0.05$). Aluminium foil Standpouch was the best package for maintaining the water, protein, fat and lysine content of milkfish floss.

© 2016 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the science and editorial board of ISAPPROSH 2015

Keywords: Milkyfish floss; packaging; proximate content

1. Introduction

Floss generally made from beef, young jackfruit, and kluwih [*Artocarpus camansi* (Blanco, 1837)]. Recently fish floss is widely known. Fish floss is made from fish and it is processed by steaming and frying with adding a wide variety of herbs and spices in order to obtain a delicious taste and have a longer shelf life (durability). The price is relatively cheap, contain high nutrients can also be developed as a household business (home industry) (Tridiyani, 2012).

* Corresponding author. Tel.: +62 852 2505 4404.
E-mail address: imasetianto@gmail.com

During storage, milkfish floss quality change chemically, physically and sensory. Decreasing of nutritional value and rancidity can occur during storage. Milkfish floss is packed to reduce the loss of quality. Packaging intended to protect from damage, preserving, as the identity of the product and facilitate the shipping and storage. As a preservation, packaging have to protect product from external influences that could cause quality deterioration from moisture; oxygen; light; other flavour, odour and chemical (Dixon, 2011). Fish floss have been marketed with various types of packaging to maintain from deterioration quality.

Milkfish floss contain high protein, fat and essential amino acid lysine. Lysine amino acid is one of the essential amino acids that are very sensitive and easily damaged. Milkfish floss proximate values and the amino acid lysine can undergo changes during storage. Different packaging is expected to affect the nutritional changes fish floss during storage. The types of packaging used for floss product include: plastics, standing pouches, jars, composite can and other. Previous research showed non vacuum packing of marlin fish floss had a shelf life of 22 wk at a temperature of 35 °C (Tridiyani, 2012). Research on changes in nutrition of milkfish floss with different packaging (plastic polypropylene bag, polystyrene jar and Aluminium foil stand pouch) during the storage process needs to be conducted to determine the right packaging, that effective and efficient to maintain the nutritional value of milkfish floss during storage. This study aims to determine the effect of the type of packaging to changes in the proximate and amino acid lysine content of milkfish floss during storage.

2. Material and methods

2.1. Material

The fresh milkfish [*Chanos chanos* (Forsskål, 1775)] were bought from farmers in Juwana Pati, Central Java, Indonesia and kept in cool box until processing. Spices used in milkfish floss were salt, garlic, onion, sugar, ginger, galangal, turmeric, bay leaves and coriander.

2.2. Milkfish floss processing

Fish were weighed and washed. Furthermore, fish were steamed at 90 °C temperature for 30 min. Steamed fish were separated between spines and flesh. Spices that have been prepared and cooked mixed with fish meat then fried for 45 min. The oil was separated from the milkfish floss by using a spinner. Milkfish floss then packed with different packaging.

2.3. Different packaging

Packaging used in this study consisted of three types: polypropylene plastic bag, polystyrene jar and aluminium foil standing pouch. Polypropylene plastic bag has dimension 10 cm × 15 cm with 8 μ (1 μ equaling 1×10⁻⁶ of a metre) thickness. Polystyrene jars have spherical shape with diameter 20 cm while the stand pouch made from aluminum foil and PET laminated plastic with 0.8 μ thickness. Each package were filled with 200 g milkfish floss and were stored during (0, 20, 40, 60, 80) d at 35 °C temperature. Different packaging is showed in Figure 1.

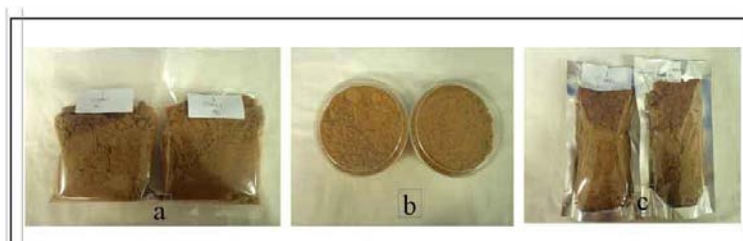


Fig 1. Milkfish floss with different packaging. (a) Polypropylene plastic bag; (b) Polystyrene jar; (c) Aluminium foil standing pouch

Download English Version:

<https://daneshyari.com/en/article/4383598>

Download Persian Version:

<https://daneshyari.com/article/4383598>

[Daneshyari.com](https://daneshyari.com)