ABSTRACT

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EFFECT OF TEMPERATURE AND FRYING TIME OF NILE TILAPIA FISH (Oreochromis niloticus) TOWARDS IODINE CONTENT CHANGES IN IODISED TABLE SALT

(xiv + 55 pages: 14 figures. 12 tables, and 17 appendices)

Iodine disorder deficiency (IDD) had been reported to affect human health and mental growth, hence some preventions were needed. Iodized salt was known to be the best way to distribute iodine to the population because it was used in daily and had economical cost. The problem was iodine loss during food processing also had been reported hence risk of IDD could still occured. This research was aimed to investigate the frying process of nile tilapia fish (Oreochromis niloticus) that had been salted with the chosen iodised salt which still retained high iodine content. Iodised table salts were obtained from various supermarkets and traditional markets around Karawaci. Each salts iodine content (in KIO₃ form) were analyzed using iodometry method. Salt with the highest iodine content was used to salten the fish with 10% concentration of fish weight for 24 hours. The salten fish then was fried using deep-fat fryer with various temperature (150, 170, 190°C) and time (1, 3, 5 minutes). A sensory test was conducted and fish that was fried with condition 170°C, 190°C, and 5 minutes statistically were most liked by the panelists. Iodine content was decreased ±38.041% after the fish was fried, but there was no significant different between frying temperature and time.

Keywords: frying, iodine, Iodine Deficiency Disorders (IDD), iodized salt, temperature and time

References: 79 (1951-2016)