

## **Effect of Combination Treatment of Liquid Smoke Concentration, Soaking Time, Packaging and Different Storage Time To Yield And Moisture Contentnila Fish Fillet(*Oreochromis niloticus*)**

**I Ketut Budaraga\***

**Agricultural Technology Department, Faculty of Agricultural Ekasakti University,  
Veteran Dalam street 21b Padang City West Sumatera Indonesia,**

**Abstract:** This study aims to determine the yield and moisture content *fillet* of tilapia (*Oreochromis niloticus*) were given the combination treatment pickling liquid smoke concentration, soaking time, types of packaging and storage time are different. This study was conducted in laboratory with factorial experiment in a completely randomized design (CRD)  $5 \times 3 \times 3 \times 5$  with 3 replicates in order to obtain 675 experimental units. A factor consists of the concentration of liquid smoke is composed of 5 (five) levels is Control (smokeless liquid / 0%), 5% and 10%, 15% and 20%; long immersion factor B consists of 3 (three) levels is soaking time 5 minutes, 10 minutes and 15 minutes; factor C type of packaging consists of three (3) levels is without packaging (control), plastic packaging polyethylene (PE) and packaging plastic polypropylene (PP) and factor D storage time (days) consists of 5 (five) levels is 0, 3 , 6.9 and 12 days. Parameters measured were yield and moisture content. The results showed that the interaction effect of combined treatment of different concentrations of liquid smoke cinnamon soaking time to the yield ( $P < 0.05$ ), as well as in combination treatment with different concentrations of different storage time. The combination of other treatments showed no significant effect on yield effect ( $P > 0.05$ ). For a combination of 3 (three) and 4 (four) treatments showed no interaction. Rated highest yield obtained in the combination treatment of soaking time 15 minutes on without soaking liquid smoke (smoke concentration liquid 0%) of 73.686% was significantly different from other treatments, combination treatment concentration liquid smoke 0% (without liquid smoke) with a storage time of 9 days amounting to 71.77% significantly different from other treatments, while the combination of other treatments were not significantly different. On the water content *fillet* of tilapia, no interaction on a combination of four treatments, the difference of soaking, the concentration difference immersion, types of packaging and storage time ( $P < 0.05$ ), but the interaction on a combination of three treatment difference soaking time, the difference of concentration and storage time on water content. Interactions also occur in prolonged submersion, types of packaging and storage time while the combination of two, three other treatments did not show any interaction on water content. The results of the water content of the lowest in the *fillet* of tilapia found in the average water content *fillet* of tilapia lowest obtained in the treatment of packaging in plastic bags of polyethylene (PE) in the old submerged for 15 minutes with storage for 0 days of (11.934%), and water content results a combination of four treatments preservation on *fillet* of tilapia meet the Indonesian National Standard (SNI) 01-2725-1992 namely smoked fish a maximum moisture content of 60 percent.

**Keywords :***fillet*, concentration, soaking, packaging, storage.