

## ABSTRACT

Mailina, Ikke, Lutfi. , 2014. **Effect of Water Fruit Juice starfruit (*Averrhoa bilimbi* L.) and NaCl salt on the Quality of Tilapia (*Oreochromis niloticus*)**. Thesis. Department of Biology. Faculty of Science and Technology. State Islamic University of Maulana Malik Ibrahim Malang. Supervisor: (I) Ir. Liliek Harianie AR, MP (II) Umayatus Syarifah, MA.

**Keywords:** Tilapia, fruit starfruit, TPC (Total Plate Count), moisture content, protein content, and organoleptic.

Tilapia (*Oreochromis niloticus*) is one kind of important fish in aquaculture systems or aquaculture. FOA (Food and Agriculture Organization) in 2010, put the tilapia in order to three after shrimp and salmon as an example of successful aquaculture world. One alternative is a natural preservative by adding a combination of fruit juice fruit starfruit (*Averrhoa bilimbi* L.) with NaCl. Command to maintain the freshness of fish mentioned in Surat al Nahl verse 14, that the control of the oceans to human beings in order to catch fresh fish meat. Active compounds such as flavonoids which act as antibacterial role maintaining the quality of fish. The purpose of this study was to determine the effect of the combination of juice and salt with different incubation time.

Effect of administration of fruit juice and salt fruit starfruit, on the quality of the fish, made with a variation of the incubation time is 0 hours, 12 hours, and 24 hours. The best treatment and control continued to be investigated by the incubation time of 12 hours and 24 hours. Then analyzed the TPC, moisture content, protein content, and test organoleptic. RAK statistically analyzed using factorial.

The results showed that the value of the fish TPC treatment of lesser value when compared to controls, both treatment and control fish the longer the incubation time, the value of its TPC increasingly rising. Water content in the fish treatment can maintain up to 12 hours of incubation, whereas in controls only able to survive up to 0 hours. The water content in the body of the fish ranged from 66-84%. The protein content of the fish ranged from 16-22%, fish treatment results can last up to 24 hours while in the control can only last 12 hours. Organoleptic tilapia form the texture and flavor the longer the incubation time value decreases.