

Abstract

In this study the effect of icing on the shelf life and quality of *Litopenaeus vannamei* was investigated. After harvesting, cultured *Litopenaeus vannamei* dip in sodium metabisulphite and then divided in ice immediately and ice delay (2 hrs) treatments. Composition (Moisture, Fat, Crude protein, Ash), chemical (pH, PV, TBA, TVB-N) microbial (mesophilic (MBC), psychrotrophic(PTC)) and sensory analysis were done in 0, 3, 6, 9, 12, 15 days. The amount of pH, PV, TVB-N, TBA significant increased ($p < 0.05$) during storage. The initial PV of shrimp muscle was 0.96 which increased to 1.99 meq/kg of oil after 15 days of ice storage while in sample delayed in ice storage for 2 h PV increased from 1.18 to 2.13 meq/kg of oil. shrimp shelf life in treatments immediately 3 days was larger than delay in icing for 2 hrs treatment According to sensory analysis results, delay in icing for 2 hrs. Treatment in the ninth day and treatments stored in ice immediately after harvest twelfth were recognized nonuse.

Keywords: *Litopenaeus vannamei*, Quality, Delaying in icing



University of zabol
Graduate school
Faculty of Natural Resource Department of Aquaculture

**The Thesis Submitted for the Degree of M.Sc
(In the Field of Fisheries)**

**Icing time effect on quality of
*(Litopenaeus vannamei)***

Supervisor:
Dr. E. Alizadeh Doughikollae

Advisor:
Dr. M. Mohamadi

By:
N. Parashideh

October 2012