

Abstract

The quality of fish flesh is affected by several factors including slaughtering and breeding conditions before slaughter. The aim of this study was to investigate the effect of fasting time, density and fish weight indices as affecting factors before slaughtering and also the effect of slaughter methods on quality of common carp fillet by using response surface method (RSM). After adaptation of common carp, the fish were treated by fasting time, density and weight and then harvested after 1, 4 and 7 days. The harvested fish by gill cutting, smothering out of water and hit on the head by wooden hammer methods were slaughtered and then fillets. Microbial (TVC and PTC) and Chemical parameters (TBA and TVB-N) of fillets were measured during refrigerated storage (4 °C) on days of 0, 3, 6, 9, 12 and 15. The results showed that the lower density and weight of fish and the higher fasting time, the quality of fillets would be better after slaughtering. Also, the fasting time has a significant effect on TBA and fish weight had no effect on TBA.

Key words: *Cyprinus carpio*, Slaughtering methods, Fasting time, RSM



University of Zabol

Graduate School

Faculty of Natural Resources

Department of Fisheries

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Supervisor:

Dr. Ebrahim Alizadeh Doughikollaee

Advisors:

Dr. Mohsen Shahriari Moghadam

Dr. Mohsen Samimi

By:

Gholamreza Bakhtyari

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