

Abstract

the use of appropriate materials with antioxidant activity is considered to improve quality, increase shelf life of meat and prevent economic losses. The purpose of this investigation was to determine the antioxidant and antibacterial activities of grape pomace extract on shelf-life of packaged fillet silver carp stored at $4\pm 1^{\circ}\text{C}$. Samples of red grapes (a red grape variety prepared) freshly. then transferred to laboratory and stored in freezer (-18°C). then fillet were treated with 0, 2% and 4% concentration of phenol compounds in grape pomace extracts. In this experiment, acetone was used to extract the phenolic compounds of grape pomace by colorimetric method (Folin-Ciocalteu). Chemical (Moisture, Fat, Protein, Ash), degeneration measures factor (TVN, TBA, PV, Heme iron) and microbial (total viable count, psychrotrophic) tests were performed , pH measured, and sensory analysis done on all the samples in 0, 3, 6, 9, 12, 15 days. Results showed that amount of pH, PV, TBA, TVN, TVC and PTC increased and iron levels decreased in all treatments. fillet shelf life in treatments containing 2% extracts 3 days and in treatments with 4% extracts 6 days was larger than control treatment. According to sensory analysis results, control treatment in the ninth day and treatments containing 2% and 4% extracts, respectively in twelfth and fifteenth days were recognized nonuse. Totally, 4% concentration made available best preservation condition according to qualitative characteristics (colour, odour, texture, taste and flavor). Therefore, it is proposed using preservation of fish fillet .

Keywords: Antioxidant, Phenolic Compounds, Grape Pomace Extract, Silver Carp (*Hypophthalmichthys molitrix*).



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**Effect of antioxidant activity of grape pomace
on silver carp (*Hypophthalmichthys molitrix*)
fillet during storage in refrigerator**

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