EFFECT OF LERI WATER SOAKING CONCENTRATIONS ON REDUCING FORMALIN CONCENTRATIONS IN SALTED FISH

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ABSTRACT

Background: *Formalin is a hazardous substance that is often used to preserve food such as salted fish. Several cases of formalin usage in salted fish are still found even though the use of formalin in food has been prohibited in the Minister of Health Regulation No. 033 of 2012. Method that can be used to reduce harmful effects of formalin is soaking salted fish in leri water (rice washing water). Leri water contains proteins that can break formalin bonds in samples so it can reduce formalin concentrations. Therefore, it is necessary to do research on the effect of leri water concentrations on reducing formalin concentrations in salted fish.* ***Objective:*** *To determine the effect of leri water concentrations on the physical condition of salted fish and its effect in reducing formalin concentrations on salted fish after soaking.* ***Research method:*** *Physical observation tests were carried out by observing the physical condition of salted fish which soaked and not soaked in leri water based on texture, color and odor, while the test for reducing formalin concentrations in salted fish soaked in 100%, 150%, and 200% b/v leri water concentration using UV-Vis Spectrophotometry method with chromotophic acid reagent.* ***Results of the study:*** *The results of physical observation tests showed that salted fish soaked in leri water had changes in texture, color and odor parameters. The test of reducing formalin concentrations using 100%, 150%, and 200% leri water were 23,03%, 35,47%, and 45,83% with a maximum decrease by 200% leri water concentration b/v is 45,83%.* ***Conclusion:*** *The more concentrated leri water used, the greater the formalin decreased, which is indicated by changes in the physical condition of salted fish with the highest decrease in this study by leri water concentration of 200% b/v is 45,83%.*

Key words: Formalin, Salted fish, Leri Water, Chromotropic Acid, UV-Vis Spectrophotometry