

ABSTRAK

KONTROL BROWNING ENZIMATIK BUAH SALAK (*Salacca edulis*) DENGAN AIR PANAS DAN PENCELUPAN ASAM SITRAT

oleh

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Tujuan penelitian ini adalah untuk mengetahui apakah pencelupan daging buah salak (*Salacca edulis*) dalam air panas sebelum perlakuan asam sitrat efektif memperlambat proses browning daging buah salak. Penelitian dilaksanakan di Laboratorium Botani, Jurusan Biologi, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Lampung, dari Juli-Agustus 2018. Penelitian dilaksanakan dalam percobaan faktorial 2 x 3. Faktor A adalah temperatur air dengan 2 taraf: 27°C dan 100°C. Faktor B adalah asam sitrat dengan tiga taraf konsentrasi: 0%, 5% dan 10%. Sebagai parameter adalah Indeks Browning, Kandungan Karbohidrat Terlarut Total, dan Aktivitas Enzim Dehidrogenase. Uji homogenitas ragam dan analisis ragam serta Uji BNT dilakukan pada taraf nyata 5%. Hasil penelitian menunjukkan bahwa perendaman daging buah salak dalam air panas (100°C) selama 5 detik meningkatkan Indeks Browning dari 0,12 menjadi 0,18 dan tidak ada efek yang signifikan terhadap kandungan karbohidrat terlarut total dan aktivitas enzim dehidrogenase daging buah salak. Perendaman selanjutnya dalam larutan asam sitrat tidak berpengaruh nyata terhadap semua parameter. Dari hasil penelitian disimpulkan bahwa pencelupan buah salak dalam air panas sebelum perendaman dalam larutan asam sitrat tidak efektif memperlambat proses browning buah salak.

Kata kunci: *asam sitrat, browning, enzim dehidrogenase, salak*

ABSTRACT

ENZYMATIC BROWNING CONTROL OF SNAKE FRUIT (*Salacca edulis*) WITH HOT WATER AND DIPPING IN CITRIC ACID

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The purpose of this study was to determine whether the dipping of snake fruit (*Salacca edulis*) in hot water before the treatment of citric acid effectively slowed the process of browning of snake fruit flesh. The study was conducted at the Botanical Laboratory, Department of Biology, Faculty of Mathematics and Natural Sciences, University of Lampung, from July to August 2018. The research was carried out in 2 x 3 factorial experiment. Factor A was the water temperature with 2 levels: 27°C and 100°C. Factor B was citric acid with three levels of concentration: 0%, 5% and 10%. The parameters were Browning Index, Total Dissolved Carbohydrate Content, and Dehydrogenase Enzyme Activity. Homogeneity test of variance and analysis of variance and LSD Test was carried out at 5% significance level. The results showed that the immersion of snake fruit in hot water (100°C) increased the Browning Index from 0.12 to 0.18, and there was no significant effect on the total dissolved carbohydrate content and the activity of snake fruit dehydrogenase enzyme. Subsequent immersion in citric acid solution did not significantly affect all parameters. From the results of the study it was concluded that the dipping of snake fruit in hot water before soaking in citric acid solution was not effective in slowing the process of browning of snake fruit.

Keywords: *browning, citric acid, enzyme dehydrogenase, snake fruit*