

ABSTRACT

THE EFFECT OF HOT WATER TREATMENT (HWT) ON SALAK PONDOH DURING STORAGE

By

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Salak (*salacca edulis*) is one of fruit that grows in tropical climate conditions, such as Indonesia. After harvesting, salak occurs the physiological activity, especially respiration which is the factor causing damage of fruit. One solution to solve the damage of salak is using HWT treatment. This research aims to determine the effect of HWT that use temperature differences on the quality of salak during storage.

This research was conducted in Bioprocess and Post-Harvest Handling laboratory, agricultural engineering department, Lampung University. This research used Complete Factorial Randomized Design (RAL) with different treatment on temperature. The level of treatment consisted of four levels, that were 45°C, 50°C, 55°C and control which is repetition three times.

The result of research showed storage, HWT treatment had effect in vitamin C and water content on the second day. When the highest vitamin C levels in salak of 8,07 mg/100g was indicated on 50°C and the highest water content in salak was

indicated on 55°C, at the end of observation. The percentage of white rot on control treatment is 60% on the sixth day storage, meanwhile for 45°C, 50°C and 55°C treatment are 60% on the tenth day. Based on analysis of variance revealed the different of HWT temperature is not significant to the shrinkage weight, hardness, total acid and total soluble solid (Brix), but this treatment had significant of vitamin C and water content.

Keywords: Salak, HWT, vitamin C levels, water content and white rot.

ABSTRAK

PENGARUH *HOT WATER TREATMENT* (HWT) PADA BUAH SALAK PONDOH SELAMA PENYIMPANAN

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Salak (*Salacca edulis*) merupakan salah satu jenis buah yang berkembang dalam kondisi iklim tropis salah satunya di Indonesia. Setelah dipanen salak masih melakukan aktivitas fisiologis terutama respirasi yang menjadi faktor penyebab kerusakan buah. Salah satu cara untuk menangani kerusakan pada buah salak yaitu dengan menggunakan aplikasi *Hot Water Treatment* (HWT). Penelitian ini bertujuan untuk mengetahui pengaruh HWT menggunakan perbedaan suhu terhadap kualitas buah salak selama penyimpanan.

Penelitian ini dilaksanakan di dalam laboratorium bioproses dan pascapanen Jurusan Teknik Pertanian Fakultas Pertanian Universitas Lampung. Penelitian ini menggunakan Rancangan Acak Lengkap Faktorial (RAL) dengan perlakuan yaitu pada suhu 45°C, 50°C, 55°C dan ulangan 3 kali. Hasil penelitian menunjukkan bahwa presentase terserang busuk putih pada perlakuan kontrol 60% pada hari ke 6, sedangkan perlakuan 45°C, 50°C dan 55°C 60% pada hari ke 10.

Berdasarkan hasil sidik ragam perlakuan HWT tidak signifikan terhadap parameter susut bobot, kekerasan, total asam dan KPT (Brix), namun perlakuan HWT yang signifikan terhadap parameter kadar vitamin C dan kadar air. Perlakuan HWT berpengaruh terhadap kadar vitamin C pada pengamatan hari ke 8 dan kadar air pada hari ke 2, kadar vitamin C dalam salak tertinggi ditunjukkan pada perlakuan 50°C yaitu 8,07 mg/100g dan kadar air dalam buah salak tertinggi ditunjukkan pada perlakuan kontrol pada akhir pengamatan.

Kata kunci : salak, hot water treatment, kadar vitamin C, kadar air dan busuk putih.