

**KAJIAN KARAKTERISTIK MUTU SALAK PONDOH  
(*Salacca edulis* Reinw.) SELAMA PENYIMPANAN  
DENGAN APLIKASI ASAM *HYPOIODOUS***

***QUALITY CHARACTERISTICS OF SALAK PONDOH (*Salacca  
edulis* Reinw.) DURING STORAGE TREATED WITH  
HYPOIODOUS ACID***



Tesis  
Untuk memenuhi sebagian persyaratan  
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Magister Ilmu Gizi

Wildan Alfira Gusrianto  
22030116410012

**FAKULTAS KEDOKTERAN  
UNIVERSITAS DIPONEGORO  
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## ABSTRAK

### **Kajian Karakteristik Mutu Salak Pondoh (*Salacca edulis* Reinw.) Selama Penyimpanan dengan Aplikasi Asam *Hypoiodous***

**Wildan Alfira Gusrianto**

**Latar Belakang:** salak Pondoh merupakan jenis buah non-klimaterik dengan berbagai kandungan gizi yang rentan rusak dan memiliki umur simpan pendek pada penyimpanan suhu ruang. Terjadinya kerusakan buah dapat menyebabkan penurunan mutu gizi dan nilai jual. Asam *hypoiodous* yang memiliki kemampuan antimikroba dapat digunakan untuk mempertahankan mutu salak Pondoh.

**Tujuan:** menganalisis pengaruh asam *hypoiodous* terhadap karakteristik mutu salak Pondoh selama penyimpanan pada suhu ruang.

**Metode:** penelitian menggunakan rancangan acak lengkap dengan tiga kali pengulangan dengan 45 salak tiap kelompok. Penyemprotan asam *hypoiodous* pada keseluruhan permukaan salak Pondoh dilakukan setiap hari dan disimpan selama 12 hari pada suhu ruang, serta pengamatan karakteristik mutu warna, kekerasan, total mikroba, total padatan terlarut, pH, dan aktivitas antioksidan dilakukan setiap dua hari sekali. Analisis data menggunakan uji *Shapiro-Wilk*, *independent t-test*, *Mann-Whitney*, dan ANOVA dengan nilai signifikansi pada  $p < 0,05$ .

**Hasil:** penggunaan asam *hypoiodous* dapat meningkatkan aktivitas antioksidan buah salak Pondoh dan menurunkan total mikroba dan total padatan terlarut. Selain itu, asam *hypoiodous* mampu memperbaiki warna, kekerasan, dan pH buah salak Pondoh.

**Simpulan:** asam *hypoiodous* berpengaruh nyata terhadap aktivitas antioksidan, total mikroba, dan total padatan terlarut pada salak Pondoh. Warna, kekerasan, dan pH buah salak Pondoh tidak berbeda dengan yang tanpa perlakuan asam *hypoiodous*.

**Kata kunci:** asam *hypoiodous*, mutu, penyemprotan, penyimpanan, salak Pondoh

## ABSTRACT

### **Quality Characteristics of Salak Pondoh (*Salacca edulis* Reinw.) during Storage Treated with *Hypoiodous* Acid**

**Wildan Alfira Gusrianto**

**Background:** salak Pondoh is a type of non-climateric fruit with various nutrition contents that is susceptible to damage and have short shelf life at room temperature storage. The occurrence of fruit damage can lead decreasing nutritional quality and selling points. *Hypoiodous* acid that has antimicrobial ability can be used to maintain the quality of salak Pondoh.

**Objectives:** this study aimed to analyze the influence of *hypoiodous* acid application on the quality characteristics of salak Pondoh during storage at room temperature.

**Methods:** this study used a completely randomized design with three replications and each group consisted of 45 salak. The spraying of *hypoiodous* acid on the entire surface of salak Pondoh was conducted every day and stored at room temperature for 12 days, and the observation of the characteristics of salak were color quality, hardness, total microbes, total dissolved solids, pH, and antioxidant activity was performed every two days. Data were analyzed using *Shapiro-Wilk*, *independent t-test*, *Mann-Whitney*, and ANOVA test with significance value at  $p < 0.05$ .

**Results:** the application of *hypoiodous* acid increased the antioxidant activity of salak Pondoh and decreased total microbes and total dissolved solids. In addition, *hypoiodous* acid was able to improve the color, hardness, and pH of salak Pondoh.

**Conclusions:** *hypoiodous* acid had significant effect on antioxidant activity, total microbes, and total dissolved solids in salak Pondoh. While the color, hardness, and pH of the treated salak Pondoh did not show any significant differences with the non-treated group.

**Keywords:** *hypoiodous* acid, quality, spraying, storage, salak Pondoh