

PENGARUH PATI UBI JALAR, KARBOKSIMETILSELULOSA DAN  
GLISEROL SEBAGAI *EDIBLE COATING* TERHADAP KUALITAS  
PENYIMPANAN BUAH SALAK (*Salacca zalacca*)

SKRIPSI

diajukan untuk memenuhi sebagian dari syarat memperoleh gelar sarjana sains di  
bidang kimia



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## ABSTRAK

*Edible coating* merupakan lapisan tipis pelindung tambahan pada permukaan bahan pangan yang terbukti meningkatkan kualitas dan umur simpan. Pada penelitian ini yang berjudul “Pengaruh Pati Ubi Jalar, Karboksimetilselulosa dan Gliserol Sebagai *Edible Coating* Terhadap Kualitas Penyimpanan Buah Salak (*Salacca zalacca*)” ini bertujuan untuk mengetahui dan menjelaskan bagaimana kandungan dan komposisi pati yang diperoleh dari ubi jalar sebagai bahan utama pembentuk *edible coating* dan pengaruh konsentrasi pati ubi jalar pada *edible coating* kombinasi *Carboxymethyl cellulose* (CMC) dan gliserol pada buah salak berdasarkan indikator susut bobot, kadar vitamin C dan total mikroba. Metode penelitian yang dilakukan yaitu metode analisis laboratorium dan *review* jurnal. Dilakukan pencarian pustaka menggunakan, *Google Scholar*, *PubMed* dan *elsevier* terkait *edible coating* berbahan pati ubi jalar, CMC, gliserol, sifat fisik dan kimia pati ubi jalar. Jurnal rujukan utama menggunakan buah salak yang akan di-*coating* dengan bahan berupa pati ubi jalar dengan konsentrasi (2; 3; 4; 5; 6% b/b), gliserol 1%, dan CMC 1%. Hasil penelitian mendapatkan berat tepung pati ubi jalar sebesar 350,54 gram atau 11,68 %. Hasil penelusuran mendapatkan kadar amilosa 28-29 %, amilopektin 70-71 %, ukuran granula 2-42  $\mu\text{m}$ , *swelling power* 4.00 – 4.75 g/g dari pati ubi jalar dan *edible coating* dapat menekan penurunan kadar susut bobot, kadar vitamin C pada buah salak, tetapi belum dapat menekan pertumbuhan bakteri dan jamur karena tidak dilengkapi dengan bahan antimikroba.

**Kata kunci** : Buah salak, *edible coating*, pati ubi jalar, CMC, gliserol

## **ABSTRACT**

*Edible coating is an additional thin protective layer on the surface of food that is proven to improve the quality and shelf life. In this study entitled "The Effect of Sweet Potato Starch, Carboxymethylcellulose and Glycerol as Edible Coatings on Storage Quality of Salak Fruit (Salacca zalacca)" aims to determine and explain how the content and composition of starch obtained from sweet potatoes as the main ingredients forming edible coatings and the effect of sweet potato starch concentration on edible coating combination of Carboxymethyl cellulose (CMC) and glycerol on salak fruit based on indicators of weight loss, vitamin C levels and total microbes. The research method used is the method of laboratory analysis and journal review. A library search was conducted using Google Scholar, PubMed and Elsevier related to edible coatings made from sweet potato starch, CMC, glycerol, physical and chemical properties of sweet potato starch. The main reference journal uses salak fruit which will be coated with ingredients such as sweet potato starch with concentrations (2; 3; 4; 5; 6% w / w), glycerol 1%, and CMC 1%. Sweet Potatoes was 350.54 grams or 11.68%. The search results get amylose content of 28-29%, amylopectin 70-71%, granule size 2-42  $\mu\text{m}$ , swelling power 4.00 - 4.75 g / g from sweet potato starch and edible coating can reduce the decrease in weight loss, vitamin C content in fruit snake fruit, but has not been able to suppress the growth of bacteria and fungi because it is not equipped with antimicrobial ingredients.*

**Keywords :** *Salak fruits, edible coating, sweet potato starch, CMC, glycerol*

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