# ABSTRAK

Derivatisasi kitosan menjadi *N*-metil kitosan telah dilakukan melalui alkilasi gugus amino menggunakan aldehid dengan prosedur reduktif aminasi. *N*-metil kitosan termasuk senyawa alami yang mempunyai sifat antimikroba. Tujuan penelitian ini adalah mengkaji mengenai karakteristik *N*-metil kitosan, bentuk bakteri dan genera jamur pada mikroba nopia dan jenang jaket serta aktivitas antimikroba *N*-metil kitosan. Hasil penelitian yang diperoleh berupa nilai rendemen, derajat substitusi, bobot molekul dan kelarutan. Hasil isolasi mikroba pada nopia dan jenang jaket diperoleh empat isolat bakteri dan dua isolat jamur. *N*-metil kitosan memberikan aktivitas antimikroba lebih tinggi dibandingkan kitosan berdasarkan perhitungan jumlah koloni bakteri dengan TPC *(Total Plate Count)* serta pertumbuhan spora jamur pada media cair.

Kata kunci: *N*-metil kitosan, antimikroba, nopia, jenang jaket

**ABSTRACT**

Chitosan derivatization becoming *N*-methyl chitosan has been conducted through alkylation of amino groups using aldehyde with reductive amination procedure. *N*-methyl chitosan includes natural compound that has antimicrobial character. The aim of this research was reviewing about characteristic of *N*-methyl chitosan, bacteria form and genera of fungi in nopia and *jenang jaket* microbes and the activity of antimicrobial of *N*-methyl chitosan. The results of this research are obtained rendemen value, degree of substitution, molecular weight and solubility. The results of microbial isolation from nopia and jacket jenang obtained four bacterial isolates and two fungal isolates. *N*-methyl chitosan provides higher antimicrobial activity than chitosan based on the calculation of the amount of bacterial colonies with TPC (Total Plate Count) and the growth of fungal spores in liquid media.

Keywords: *N*-methyl chitosan, antimicrobial, nopia, jenang jaket