

## INTISARI

### PENGARUH LAMA PERENDAMAN NILA MERAH DALAM NANOKITOSAN TERHADAP KEMUNDURAN MUTU SELAMA PENYIMPANAN SUHU RUANG

FADLI EFENDI

10/302228/PN/12140

Kitosan telah diketahui memiliki sifat antibakteri sehingga berpotensi untuk digunakan sebagai pengawet alami ikan. Modifikasi ukuran kitosan menjadi ukuran nanopartikel akan meningkatkan sifat antibakteri karena dapat lebih mudah larut dalam air dan nanokitosan mampu mendifusi ke dalam jaringan lebih baik. Penelitian ini bertujuan untuk mengetahui efek lama perendaman ikan dalam nanokitosan terhadap kemunduran mutu ikan. Ikan nila merah direndam dalam nanokitosan pada berbagai variasi waktu perendaman (0, 15, 30, 45 dan 60 menit). Sebagai kontrol digunakan ikan nila merah tanpa perendaman dalam nanokitosan. Masing-masing perlakuan diulang 3 kali. Konsentrasi nanokitosan yang digunakan adalah 0,8% berdasarkan hasil uji stabilitas nanokitosan dan MIC (*Minimum Inhibitor Concentration*) pada penelitian ini. Pengamatan kemunduran mutu dilakukan setiap 4 jam sekali meliputi nilai TPC (*Total Plate Count*), TVB (*Total Volatile Base*), *driploss*, kadar air, organoleptik dan pH. Hasil penelitian menunjukkan bahwa lama perendaman 45 menit memberikan efek yang terbaik dalam menghambat kemunduran mutu ikan. Perlakuan perendaman ikan nila dalam nanokitosan mampu menghambat kemunduran mutu hingga jam ke-8 sedangkan perlakuan kontrol hanya sampai jam ke-4 berdasarkan SNI 01-2729-1992.

Kata kunci: nanokitosan, lama perendaman, ikan nila merah, penyimpanan suhu ruang, kemunduran mutu

### **ABSTRACT**

#### ***EFFECT OF SOAKING TIME IN NANOCHITOSAN ON DETERIORATION OF FRESH TILAPIA QUALITY STORED AT ROOM TEMPERATURE***

**FADLI EFENDI**

10/302228/PN/12140

*Chitosan has been known has antibacterial activity so it potential to be used as a natural fish preservative. Modifications chitosan size into nano particle size will increase the antibacterial activity because it can be more easily dissolved in water and able to diffuse into the tissue better. The aim of this study was to determine the effect of soaking time in nanochitosan on deterioration of fresh tilapia quality. Fresh tilapia soaked in nanochitosan at various soaking time (0, 15, 30, 45 and 60 minutes). Fresh Tilapia without treatment with nanochitosan was used as a control. The treatment was repeated 3 times, respectively. Nanochitosan concentration that used was 0.8%, based on stability test of nanochitosan and MIC test (Minimum Inhibitor Concentration) in this study. The observation on deterioration of quality fish was done every 4 hours included the TPC (Total Plate Count) value, TVB (Total Volatile Base) value, driploss, water content, organoleptic value and pH value. The results showed that the soaking of fish for 45 minutes on nanochitosan gives the best effect in inhibiting the deterioration of quality fish. Tilapia with soaking treatment in nanochitosan able to inhibit quality deterioration up to 8 hour while the control treatment only 4 hours, based on SNI 01-2729-1992.*

*Keywords: nanochitosan, soaking time, fresh red tilapia, temperature room storage, quality deterioration*