



Intisari

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan larutan nanokitosan terhadap mutu surimi ikan patin serta mengetahui rasio penambahan larutan nanokitosan dan *cyoprotectant* yang efektif dalam meningkatkan mutu surimi ikan patin. Volume larutan nanokitosan yang ditambahkan pada surimi terdiri dari 1%; 1,5%; dan 2% (v/b), masing-masing volume dibagi dalam 4 perlakuan dengan kombinasi perbandingan nanokitosan dan *cryoprotectant* yang ditambahkan sebesar 100:0, 75:25, 50:50 serta 25:75. Kontrol (100C-0N) yang digunakan dalam penelitian ini adalah surimi dengan penambahan sukrosa 4%, sorbitol 4% dan STPP 0,3%. Parameter yang diamati, meliputi analisis kimia (kadar air, kadar lemak, pH dan daya ikat air), analisis fisik (kekuatan gel, derajat putih, uji lipat dan uji gigit) serta analisis sensoris (aroma, tekstur dan warna). Hasil penelitian menunjukkan bahwa penambahan larutan nanokitosan dan kombinasi *cryoprotectant* memberikan pengaruh terhadap nilai kekuatan gel surimi, kadar air, daya ikat air, pH, uji lipat, uji gigit dan tekstur serta tidak memberikan pengaruh terhadap nilai kadar lemak, derajat putih surimi, derajat putih gel, warna dan aroma. Penambahan larutan nanokitosan 0,5% (v/b) dikombinasikan dengan *cryoprotectant* 6% (75C-25N) efektif dalam meningkatkan mutu surimi ikan patin, dilihat dari nilai kekuatan gel ($788,80 \text{ g/cm}^2$), derajat putih surimi (74,5%), derajat putih gel surimi (80%) serta kadar air (77%) yang telah memenuhi standar mutu surimi SNI dan standar perdagangan.

Kata kunci: *cryoprotectant*, derajat putih, kekuatan gel, nanokitosan, surimi



Abstract

The purpose of this research was to determine the effect of nanochitosan addition to the quality of patin surimi and to determine the ratio of nanochitosan addition and cryoprotectant that are effective in improving the quality of patin surimi. The volume of nanocytosan solution added to surimi consists of 1%; 1.5%; and 2% (v/w), each volume was divided into 4 treatments with a combination of the ratio of nanocitosan and cryoprotectant added at 100: 0, 75:25, 50:50 and 25:75. The control (100C-0N) used in this study was surimi with the addition of 4% sucrose, 4% sorbitol and 0.3% STPP (w/w). The parameters observed was chemical analysis (moisture content, fat content, pH and water holding capacity), physical analysis (gel strength, whiteness, folding test and bite test) and sensory analysis (aroma, texture and colour). The results showed that the addition of nanocitosan and cryoprotectant combination had an effect on the value of surimi gel strength, moisture content, water holding capacity, pH, folding test, bite test, texture and did not affect fat content, whiteness of surimi, whiteness of gel surimi, colour and aroma. The addition of 0.5% nanocitosan (v/w) combined with 6% cryoprotectant (75C-25N) was effective in improving the quality of patin surimi, seen from the value of gel strength (788,80 g/cm²), whiteness of surimi (74,5%), whiteness of gel surimi (80%) and water content (77%) that has met surimi SNI quality standards and trade standards.

Keywords: cryoprotectant, whiteness, gel strength, nanochitosan, surimi