

**UJI DAYA HAMBAT KITOSAN HASIL TRANSFORMASI KITIN DARI
KULIT UDANG WINDU (*Penaeus monodon* Fabricus) TERHADAP
PERTUMBUHAN *Aspergillus flavus***

Christinataliawati, 2007

Pembimbing : (I) Harry Santosa, (II) Arief Gunawan Darmanto

ABSTRAK

Isolasi kitin dari kulit udang windu (*Penaeus monodon* Fabricus) dilakukan melalui tiga tahap utama (deproteinasi, demineralisasi dan depigmentasi) dan didapatkan kitin sebesar 20%-22%. Kitin selanjutnya ditransformasi menjadi kitosan dan didapat hasil 63%-69%. Hasil isolasi dan transformasi diidentifikasi dengan uji kelarutan dan spektrofotometri inframerah. Hasil transformasi selanjutnya diuji daya hambatnya terhadap pertumbuhan jamur *Aspergillus flavus*. Metode yang digunakan pada penelitian ini adalah metode difusi agar dengan menggunakan *cylinder cup*. Daya hambat diukur berdasarkan diameter hambatan pertumbuhan mikroba. Hasil penelitian menunjukkan bahwa kitosan dalam asam asetat 0,75% dengan konsentrasi 1%, 0,5%, 0,1% dan 0,01% tidak memberikan hambatan terhadap *Aspergillus flavus*.

Kata kunci: Kitin, Kitosan, Udang Windu, *Penaeus monodon*, daya hambat, *cylinder cup*, *Aspergillus flavus*

ABSTRACT

Chitin isolation from tiger prawn (*Penaeus monodon* Fabricus) shell is conducted through three main phases (deproteinization, demineralization and depigmentation) and 20%-22% chitin was obtained. The chitin was transformed into chitosan and the result was 63%-69%. The isolation and transformation results were identified with solubility test and infrared (IR) spectrophotometry. The inhibitory activity of the transformation result is then tested against the growth of *Aspergillus flavus* fungus. The method used in this research is diffusion method in order to use cylinder cup. The inhibitory activity is measured by the diameter of microbe growth inhibition. The result shows that chitosan in acetate acid of 0,75% with concentration of 1%, 0,5%, 0,1% and 0,01% does not give the inhibition against *Aspergillus flavus*.

Key words: Chitin, chitosan, tiger prawn, *Penaeus monodon*, inhibitory activity, cylinder cup, *Aspergillus flavus*