# ABSTRAK

Formulasi membran ekstrak belut sebagai penutup luka telah dilakukan. Tujuan penelitian adalah untuk melihat pengaruh jenis *plastisizer* dan konsentrasinya terhadap ketebalan, sifat mekanik dan permeabilitas terhadap uap air membran. Ekstrak belut diformulasi dengan PVA, nipagin, nipasol dan tiga jenis *plastisizer* yaitu gliserin, propilen glikol dan polietilen glikol. Evaluasi membran berupa penampilan, ketebalan, sifat mekanik dan permeabilitas terhadap uap air. Hasil penelitian menunjukkan, penggunaan jenis *plasticizer* yang berbeda memberikan pengaruh teerhadap kekuatan daya regang, persen pertambahan panjang dan *Modulus Young's* membran ekstrak belut. ($p<0,05$). Konsentrasi *plasticizer* yang berbeda memberikan pengaruh terhadap nilai ketebalan, kepada kekuatan daya regang, persen pertambahan panjang dan *Modulus Young's* membran ekstrak belut. ($p<0,05$). Formula membran ekstrak belut yang memiliki persen pertambahan panjang yang bagus dan bersifat permeabel adalah formula dengan *plasticizer* gliserin 3% dan gliserin 5%.

## ABSTRACT

Membrane formulations of eels extract for wound-healing have been performed. The aim of this study was to evaluate the influence of plasticizer and their concentration on the thickness, mechanical properties, and water vapor permeability. Eels extract was formulated concomitantly with PVA, nipagin, nipasol and three plasticizers which were glycerol, propylene glycol and polyethylene glycol as membrane. Membrane evaluations included general appearance, thickness, mechanical properties and water vapor permeability. Results showed that the use of different types of plasticizers which gave significant effect to the tensile strength, elongation at break and Young's Modulus of membrane formulation of eels extract ($P < 0.05$). On the other hand concentration of plasticizer affect to the value of the thickness, tensile strength, elongation at break and Young's Modulus of eels membrane extract ($P < 0.05$). Membrane formulations of eels extracts that had good elongation at break and permeable were glycerin 3% and glycerin 5%.