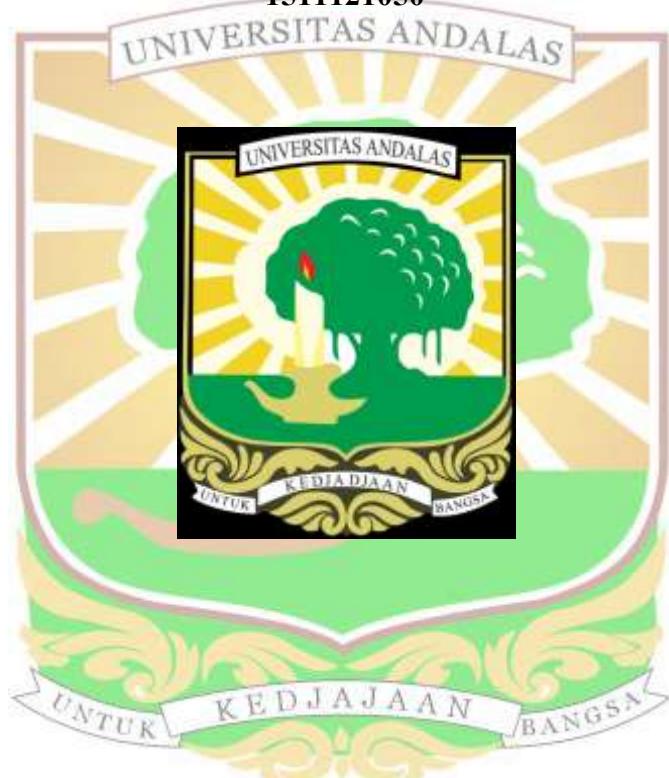


**PENGARUH PERBEDAAN LAMA WAKTU PENGEMPAAN
TERHADAP SIFAT FISIS DAN MEKANIS PAPAN PARTIKEL
DARI KLBOT JAGUNG (*Zea mays*, L.) BERPEREKAT
GAMBIR (*Uncaria gambir*, Roxb)**

WINDIRA ALPADINA

1511121050



Pembimbing :

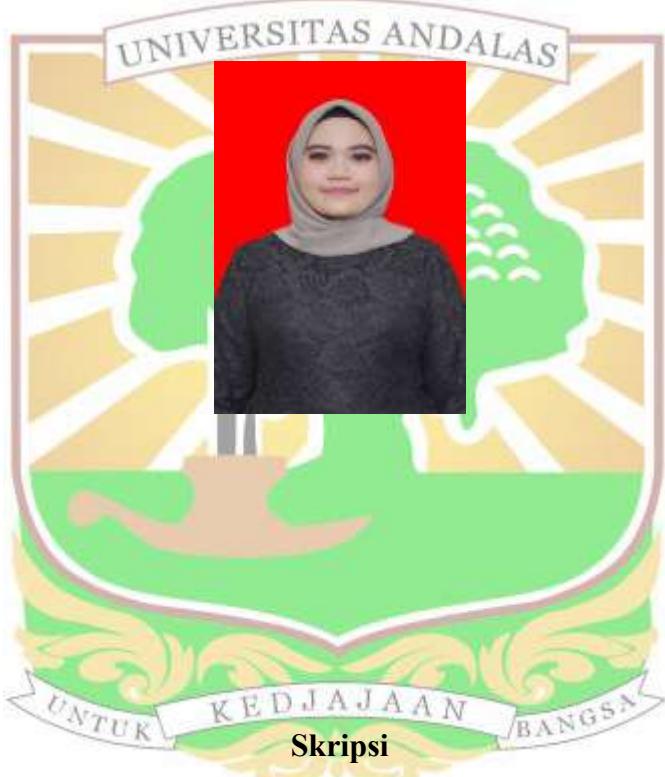
- 1. Prof. Dr. rer nat. Ir. Anwar Kasim**
- 2. Vioni Derosya, S.TP, M.Sc**

**FAKULTAS TEKNOLOGI PERTANIAN
UNIVERSITAS ANDALAS
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2020**

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*Sebagai Salah Satu Syarat untuk Memperoleh
Gelar Sarjana Teknologi Pertanian*

**FAKULTAS TEKNOLOGI PERTANIAN
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2020**

Pengaruh Perbedaan Lama Waktu Pengempaan Terhadap Sifat Fisis dan Mekanis Papan Partikel dari Klobot Jagung (*Zea mays*, L.) Berperekat Gambir (*Uncaria Gambir*, Roxb)

Windira Alpadina, Anwar Kasim dan Vioni Derosya

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh perbedaan lama waktu pengempaan terhadap sifat fisis dan mekanis papan partikel dan untuk mengetahui waktu pengempaan yang optimum papan partikel dari klobot jagung. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) terdiri dari 5 perlakuan (10, 12, 14, 16 dan 18 menit) dan 3 kali ulangan. Data dianalisis secara statistik menggunakan Analysis Of Varian (ANOVA) dan dilanjutkan uji lanjut dengan Duncan's New Multiple Range Test (DNMRT) pada taraf 5%. Pengamatan papan partikel yang dilakukan berdasarkan SNI 03-2105-2006. Pengamatan sifat fisis seperti kadar air, kerapatan, pengembangan tebal dan daya serap air. Pengamatan terhadap sifat mekanis papan partikel yaitu keteguhan patah (MOR), keteguhan tekan sejajar permukaan dan keteguhan rekat internal. Hasil analisis menunjukkan bahwa perbedaan lama waktu pengempaan berpengaruh nyata terhadap sifat fisis papan partikel terdiri dari kadar air, kerapatan, daya serap air dan pengembangan tebal. Dan berpengaruh nyata terhadap sifat mekanik papan partikel berupa keteguhan patah (MOR), keteguhan rekat internal namun berpengaruh tidak nyata terhadap keteguhan tekan sejajar papan partikel. Lama waktu pengempaan optimum terdapat pada perlakuan lama waktu pengempaan selama 16 menit (D) dengan kadar air 7,67%, kerapatan $0,52 \text{ g/cm}^3$, pengembangan tebal 161,364%, daya serap air 329,70%, keteguhan patah (MOR) $40,33 \text{ kg/cm}^2$, keteguhan rekat internal $1,90 \text{ kg/cm}^2$ keteguhan tekan sejajar permukaan $4,73 \text{ kg/cm}^2$.

Kata Kunci : Gambir, klobot jagung, Papan Partikel

The Effect of Pressing Time Difference on Physical and Mechanical Properties of Particle Board From Corn Husk with Gambier Adhesive

Windira Alpadina, Anwar Kasim dan Vioni Derosya

ABSTRACT

This research aimed to obtain information about the effect of different length of pressing time on the physical and mechanical properties of particle boards and to determine the optimum pressing time of particle boards from corn husks. This research used a Completely Randomized Design (CRD) consist of 5 treatments (10, 12, 14, 16, and 18 minutes) and three replications. Data were analyzed statistically by Analysis Of Variants (ANOVA) and followed by Duncan's New Multiple Range Test (DNMRT) at 5% significant level. The observations on particle board were based on SNI 03-2105-2006. Observations of physical properties were water content, density, development thickness, and water absorption. While observations on the mechanical properties of particleboard were modulus of rupture (MOR), compressive firmness parallel to the surface and internal bonding. The results of the analysis showed that the difference in the length of pressing time significantly affected by the physical properties of the particle board consisting of water content, density, water absorption, and thickness development. Further, there was found a significant effect on the mechanical properties of particle board in the form of modulus of rupture (MOR) and internal adhesion firmness. However, it was not significant between compressive strength parallel and the particle board. The optimum compressive time is 16 minutes (D) with a water content 7.67%, density 0.52 g/cm^3 , development thickness 161.364%, water absorption 329.70%, modulus of rupture (MOR) of 40.33 kg/cm^2 , internal bonding 1.90 kg/cm^2 and compressive firmness parallel to the surface 4.73 kg/cm^2 .

Keywords : Corn Husk, gambier, particle board