PENGARUH LAMA PEMANASAN GAMBIR *(Uncaria gambir Roxb.)* TERHADAP KARAKTERISTIK BALM OBAT JERAWAT

NAJLA ROSYADAH CHANDRA PUTRI

2111123001

Dosen Pembimbing:

1. **Daimon Syukri, S.Si, M.Si, Ph.D.**
2. **Prof. Dr. Ir. Novizar, M.S**

DEPARTEMEN TEKNOLOGI PANGAN DAN HASIL PERTANIAN

FAKULTAS TEKNOLOGI PERTANIAN

UNIVERSITAS ANDALAS

PADANG

2025

Pengaruh Lama Pemanasan Gambir *(Uncaria gambir Roxb.)* Terhadap Karakteristik Balm Obat Jerawat

Najla Rosyadah Chandra Putri[1], Daimon Syukri[2], Novizar[2]

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh lama pemanasan terhadap karakteristik Balm obat jerawat, mengetahui efektivitas *blackcube* gambir terhadap karakteristik balm obat jerawat dan menentukan karakteristik kimia, fisik, dan mikroba balm obat jerawat yang dihasilkan. Penelitian ini dirancang berdasarkan rancangan acak lengkap (RAL) berupa variasi lama pemanasan (0, 30, 60, 90, dan 120 menit). Produksi Balm obat jerawat *blackcube* gambir dilakukan dengan proses pembuatan bahan baku *blackcube* gambir kemudian dilanjutkan dengan tahap pembuatan balm obat jerawat dengan penambahan bubuk *blackcube* gambir. Hasil penelitian menunjukkan bahwa lama pemanasan berpengaruh nyata terhadap karakteristik Balm obat jerawat pada taraf 5% berupa homogenitas, daya sebar, titik lebur, iritasi, tekstur, organoleptik warna, pH, total fenol, dan aktivitas antibakteri dan tidak berpengaruh nyata terhadap aroma, warna bahan baku, dan angka lempeng total balm obat jerawat. Perlakuan terbaik pada penelitian ini adalah perlakuan E (120 menit) dengan homogenitas posisitif, daya sebar (4,47 cm), titik lebur 50°C, tidak ada iritasi, tekstur (3,92), warna (3,60), pH (7,44), total fenol (54,28), aktivitas antibakteri (16,35 mm) Identifikasi gugus fungsi *blackcube* gambir menggunakan analisis FTIR menunjukkan adanya gugus hidroksil, yang ditandai dengan puncak serapan pada kisaran 3666-3239 cm-1 (-COO- antisimetris), 1458,39 cm-1 (-COONa), dan 1412,51 cm-1 (-CH2 bending atau -COO- simetris) yang menunjukkan peningkatan senyawa fenolik.

Kata kunci: **Gambir, Blackcube gambir, Balm obat jerawat, Lama pemanasan , Jerawat**

The Effect of Heating Duration of Gambir (*Uncaria gambir Roxb*.) on the Characteristics of Acne Treatment Balm

Najla Rosyadah Chandra Putri[1], Daimon Syukri[2], Novizar[2]

ABSTRACT

This research aims to determine the effect of heating time on the characteristics of acne medication balm, to determine the effectiveness of black cube gambir on the characteristics of the acne medication balm, and to determine the chemical, physical, and microbial characteristics of the resulting acne medication balm. This research was designed based on a completely randomized design (CRD) with variations in heating time (0, 30, 60, 90, and 120 minutes). The production of black cube gambir acne medication balm was carried out by making black cube gambir raw material and then proceeding with the process of making the acne medication balm by adding black cube gambir powder. The results showed that heating time had a significant effect on the characteristics of the acne medication balm at the 5% level in terms of homogeneity, spreadability, melting point, irritation, texture, color organoleptic, pH, total phenol, and antibacterial activity, and had no significant effect on aroma, raw material color, and total plate count of the acne medication balm. The best treatment in this study was treatment E (120 minutes) with positive homogeneity, spreadability (4.47 cm), melting point of 50°C, no irritation, texture (3.92), color (3.60), pH (7.44), total phenol (54.28), antibacterial activity (16.35 mm). Identification of black cube gambir functional groups using FTIR analysis showed the presence of hydroxyl groups, characterized by absorption peaks in the range of 3666-3239 cm-1 (-COO- antisymmetric),), which indicates an increase in phenolic compounds

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Key words: Gambir, *Blackcube* gambir, Acnebalm, Heating duration, Acne