PENGARUH PENAMBAHAN BUBUK DAUN SIRIH (*Pipper betle* L.) TERHADAP KARAKTERISTIK PASTA GIGI GAMBIR BERBASIS VCO (*Virgin Coconut Oil)*

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Pengaruh Penambahan Bubuk Daun Sirih (*Pipper betle* L.) Terhadap Karakteristik Pasta Gigi Gambir Berbasis VCO (*Virgin Coconut Oil*)

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan bubuk daun sirih terhadap karakteristik pasta gigi dan aktivitas antibakterinya. Rancangan percobaan yang digunakan pada penelitian ini adalah Rancangan Acak Lengkap (RAL) dengan lima perlakuan dan tiga ulangan. Data yang diperoleh kemudian dianalisis dengan ANOVA dan jika berbeda nyata dilanjutkan dengan uji Duncan's New Multiple Range Test (DNMRT) pada taraf 5%. Perlakuan pada penelitian ini adalah penambahan bubuk daun sirih sebesar A (tanpa penambahan daun sirih), B (0,4%), C (0,8%), D (1,2%), E (1,6%) dari berat total bahan baku pembuatan pasta gigi. Berdasarkan hasil analisis kimia, fisik, sensori, dan antibakteri perlakuan terbaik diperoleh pada perlakuan D yaitu pasta gigi dengan penambahan bubuk daun sirih sebanyak 1,2% dimana diperoleh nilai pH 7,91; tinggi busa sebesar 10,33 mm, sediaan pasta gigi yang homogen dengan aktivitas antibakteri 31,03 mm dan penilaian sensori terhadap kelembutan 3,96 (lembut), homogenitas 4,12 (homogen), serta gumpalan 4,84 (tidak ada gumpalan).

Kata kunci : **aktivitas antibakteri, daun sirih, pasta gigi**

The Effect of Adding Betel Leaf Powder (*Pipper betle* L.) on the Characteristics of VCO (Virgin Coconut Oil) Based Gambir Toothpaste

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ABSTRACT

This study aims to determine the effect of adding betel leaf powder on the characteristics of toothpaste and its antibacterial activity. The experimental design used in this research was a Completely Randomized Design (CRD) with five treatments and three replications. The data obtained was then analyzed using ANOVA and if significantly different, continued with Duncan's New Multiple Range Test (DNMRT) at the 5% level. The treatment in this study was the addition of betel leaf powder in amounts A (without the addition of betel leaves), B (0.4%), C (0.8%), D (1.2%), E (1.6%) of total weight of raw materials for making toothpaste. Based on the results of chemical, physical, sensory and antibacterial analysis, the best treatment was obtained in treatment D, namely toothpaste with the addition of 1.2% betel leaf powder, which obtained a pH value of 7.91; foam height of 10,33 mm, homogeneous toothpaste preparation with antibacterial activity of 31,03 mm and sensory assessment of softness 3,96 (soft), homogeneity 4,12 (homogeneous), and lumpiness 4.84 (no lumps).

Keywords: **antibacterial activity, betel leaf, toothpaste**