

ABSTRAK

Ferawaty, Ni Ketut Fipit. 2014. **Pengaruh Substitusi Lesitin Kedelai Pada Cookies Tepung Beras Hitam dan Tepung Jagung Terhadap Kadar Lemak dan Mutu Organoleptik.** Tugas Akhir, Program Studi Ilmu Gizi Fakultas Kedokteran Universitas Brawijaya. Pembimbing : (1) dr. Soemardini, MPd (2) Yosfi Rahmi, S.Gz, MSc.

Diet padat energi, dengan lemak tinggi terutama lemak jenuh akan berdampak pada masalah gizi lebih dan berkembang menjadi obesitas. *Cookies* merupakan *snack* yang sangat digemari dan sering dikonsumsi serta mengandung lemak tinggi (40-80% dari berat tepung). Pencegahan dapat dilakukan dengan menggantikan lemak dari margarin dengan lemak dari lesitin kedelai. Penelitian ini bertujuan mengetahui pengaruh substitusi lesitin kedelai terhadap kadar lemak dan mutu organoleptik meliputi tekstur, warna, rasa dan aroma pada *cookies*. Metode penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 4 taraf perlakuan masing-masing 6 kali ulangan. Analisis statistik dari kadar lemak menggunakan *One Way ANOVA* CI 95% dilanjutkan dengan *Posthoc Test Tukey* dan mutu organoleptik menggunakan *Kruskal Wallis* dan *Mann Whitney*. Setiap pengurangan 10% margarin ditambahkan 1% lesitin kedelai dari total tepung sehingga penambahan lesitin kedelai berturut-turut adalah 0%,1%,2% dan 3%. Hasil penelitian menunjukkan kandungan lemak turun seiring meningkatnya substitusi lesitin kedelai berturut-turut adalah 16.90 g/100g, 13.44 g/100g, 10.09 g/100g, dan 6.03 g/100g. Hasil uji organoleptik menunjukkan secara keseluruhan *cookies* dengan substitusi lesitin kedelai belum memiliki penerimaan lebih baik dari *cookies* kontrol, tetapi tingkat kesukaan panelis masih di atas 80%. Kesimpulan penelitian ini adalah substitusi lesitin kedelai signifikan menurunkan kadar lemak dan memiliki pengaruh yang signifikan terhadap mutu organoleptik pada *cookies*.

Kata kunci: Lesitin Kedelai, Beras Hitam, Jagung, Lemak, Mutu Organoleptik.

ABSTRACT

Ferawaty, Ni Ketut Fipit. 2014. **The Effect of Soy Lecithin Substitution on Cookies Made From Black Rice Flour and Corn Flour to the Fat Levels and Organoleptic Quality**. Final Assignment. Nutrition Departement, Medical Faculty Brawijaya University. Supervisor: (1) dr. Soemardini, MPd (2) Yosfi Rahmi, S.Gz, MSc.

High energy and high fat diet, especially the saturated fat, affected in the development of malnutrition and led to obesity. Cookies contained fat in high percentage (40-80% of flour amounts), but are very popular to consumed as snack. Substitution of margarine as the source of fat in cookies with lecithin denoted a prevention to health risk. This study was performed to investigate the effect of soy lecithin substitution on cookies made from black rice flour and corn flour to the fat levels and organoleptic quality including texture, color, taste, and flavor of cookies. Complete Randomized Design was used in this study with 4 groups and 6 replications on each group. Statistical analysis of One Way ANOVA CI 95% was used in this study continued with Post Hoc Test Tukey to examine the fat levels, while the organoleptic quality was assessed with Kruskal Wallis and Mann Whitney. Additional lecithin were respectively 0%, 1%, 2%, and 3% since there were an additional 1% of lecithin from the total flour used in each 10% reduction of margarine. The level of fat decreased in each group respectively 16,90g/100g; 13,44g/100g; 10,09g/100g, and 6,03g/100g. Organoleptic quality test results indicated that overall cookies with lecithin substitution had not been received better than the control cookies, but yet the panelist preference level was above 80%. This study demonstrated that the substitution of soy lecithin decreased the fat levels of cookies and acceptable from organoleptic quality significantly.

Keywords: Soy Lecithin, Black Rice, Corn, Fat, Organoleptik.