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## **INDEKS GLIKEMIK DAN BEBAN GLIKEMIK SNACK BAR BERBASIS TEPUNG MOCAF DAN TEPUNG KACANG MERAH SEBAGAI ALTERNATIF MAKANAN SELINGAN PADA ATLET**

(xv + 47 halaman + 16 tabel + 7 gambar + 14 lampiran)

### **ABSTRAK**

**Latar Belakang:** Pemenuhan asupan energi dan zat gizi merupakan kunci keberhasilan atlet saat latihan dan bertanding. Beberapa hasil penelitian menunjukkan bahwa masih banyak atlet dengan asupan gizi atlet yang belum terpenuhi dengan baik. *Snack bar* berbasis tepung mocaf dan tepung kacang merah merupakan makanan selingan padat energi dan gizi serta termasuk kriteria *sports foods*. Indeks glikemik pangan yang rendah dapat menjaga kestabilan kadar glukosa darah pada atlet.

**Tujuan:** Menganalisis indeks glikemik dan beban glikemik *snack bar* berbasis tepung mocaf dan tepung kacang merah

**Metode:** Desain penelitian ini adalah *Pre-Experimental*. Subjek penelitian adalah remaja putri sebanyak 10 responden diambil dengan teknik *purposive sampling*. Pengambilan kadar glukosa darah menggunakan alat tes glukosa dengan merek *Autocheck* pada pembuluh darah kapiler. Analisa indeks glikemik dengan metode *Incremental Area Under the Blood Glucose Response Curve* (IAUC) dari hasil pengukuran kadar glukosa darah dari 10 responden. Perhitungan beban glikemik dapat diperoleh dengan mengalikan indeks glikemik dengan *available carbohydrate*/porasi dibagi 100. Analisa indeks glikemik dan beban glikemik menggunakan program komputer yaitu *Microsoft office excel*.

**Hasil:** Indeks glikemik dan beban glikemik *snack bar* berbasis tepung mocaf dan tepung kacang merah masing-masing yaitu 51,92% dan 19,39.

**Simpulan:** Indeks glikemik dan beban glikemik *snack bar* berbasis tepung mocaf dan tepung kacang merah dalam kategori rendah dan kategori sedang.

**Kata Kunci:** Indeks Glikemik, Beban Glikemik, *Snack Bar*, Tepung Mocaf, Tepung Kacang Merah

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**GLYCEMIC INDEX AND GLYCEMIC LOAD OF SNACK BAR BASED ON MOCAF FLOUR AND RED BEAN FLOUR AS AN ALTERNATIVE SNACK AT ATHLETES**

(xv + 47 pages + 16 tables + 7 pictures + 14 attachments)

**ABSTRACT**

**Background:** The fulfillment of energy intake and nutrients is the key to the success of athletes during training and competition. Several research results show that there are still many athletes whose nutritional intake has not been met properly. Snack bar based on mocaf flour and red bean flour are energy and nutrient-dense is a snack and are included in the criteria for sports foods. The low glycemic index of a food can maintain the stability of blood glucose levels in athletes.

**Objectives:** Analyzing the glycemic index and glycemic load of snack bar based on mocaf flour and red bean flour

**Method:** The design of this research is Pre-Experimental. The subject of this research is female adolescents as many 10 respondents were taken by purposive sampling technique. Taking blood glucose levels using a glucose test kit with the Autocheck brand on capillary blood vessels. Analysis of the glycemic index using the Incremental Area Under The Blood Glucose Response Curve (IAUC) method from the results of measuring blood glucose levels from 10 respondents. Calculation of glycemic load can be obtained by multiplying the glycemic index by available carbohydrate/portion divided by 100. Analysis of the glycemic index and glycemic load using a computer program that is Microsoft office excel.

**Results:** The glycemic index and glycemic load of snack bar based on mocaf flour and red bean flour were 51.92% and 19.39, respectively.

**Conclusion:** The glycemic index and glycemic load of snack bar based on mocaf flour and red bean flour were in a low category and medium category.

**Keywords:** Glycemic Index, Glycemic Load, Snack Bar, Mocaf flour, Red Bean Flour