

**ABSTRAK**

**DITA RIZKIA**

**FORMULASI *SNACK BAR* KACANG KEDELAI SUBSTITUSI TEPUNG BERAS MERAH DAN *PUREE* PISANG KEPOK SEBAGAI ALTERNATIF *SNACK* BAGI ATLET SEPAK BOLA**

Sepak bola merupakan olahraga yang membutuhkan dukungan gizi optimal untuk menjaga performa dan daya tahan atlet. Namun, asupan energi, protein, lemak, dan karbohidrat atlet sepak bola di Indonesia masih cenderung berada di bawah angka kecukupan gizi yang dianjurkan. *Snack bar* dapat menjadi alternatif makanan selingan praktis dan bergizi. Tepung beras merah dan *puree* pisang kepok berpotensi digunakan sebagai bahan utama karena kandungan karbohidrat, vitamin, mineral, dan antioksidannya. Studi ini berguna untuk memformulasikan serta menganalisis daya terima, kandungan proksimat, dan energi pada *snack bar* substitusi tepung beras merah dan *puree* pisang kepok sebagai makanan selingan bagi atlet sepak bola. Penelitian ini menggunakan empat perlakuan dengan perbandingan tepung kacang kedelai : tepung beras merah : *puree* pisang kepok yaitu F0 = 48:0:0, F1 = 20:10:18, F2 = 15:15:18, dan F3 = 10:20:18 yang diterapkan pada eksperimen dengan Rancangan acak lengkap (RAL). Formulasi yang dipilih ini ditentukan melalui uji organoleptik, yang mencakup warna, aroma, rasa, dan tekstur. Formula terbaik kemudian dianalisis proksimat dan energi. Hasil penelitian menunjukkan bahwa formula F3 memiliki nilai daya terima tertinggi yaitu 3,72. Komposisi gizi per 100 g pada formula F3 yaitu kadar air 25,98%, abu 1,50%, lemak 14,71%, protein 13,70%, karbohidrat 44,10%, dan energi 431,7 kkal. Formula F3 mengalami peningkatan kandungan karbohidrat sebesar 9,85% dan energi sebesar 11 kkal dibandingkan formula kontrol. Peneliti selanjutnya disarankan untuk menurunkan kadar air agar memenuhi standar mutu *snack bar*, upaya tersebut dapat dilakukan dengan mengoptimalkan suhu dan waktu pemanggangan.

**kata kunci** : atlet sepak bola, beras merah, pisang kepok, *snack bar*.

**FACULTY OF SCIENCE HEALTH  
SILIWANGI UNIVERSITY  
TASIKMALAYA  
NUTRITION STUDY PROGRAM  
2025**

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**DITA RIZKIA**

**FORMULATION OF SOYBEAN SNACK BARS SUBSTITUTING BROWN RICE FLOUR AND KEPOK BANANA PUREE AS AN ALTERNATIVE SNACK FOR SOCCER PLAYERS**

*Soccer is a sport that requires optimal nutritional support to maintain athletes' performance and endurance. However, the energy, protein, fat, and carbohydrate intake of soccer players in Indonesia still tends to be below the recommended nutritional adequacy levels. Snack bars can be a practical and nutritious alternative snack. Brown rice flour and kepok banana puree have the potential to be used as main ingredients due to their carbohydrate, vitamin, mineral, and antioxidant content. This study is useful for formulating and analyzing the acceptability, proximate content, and energy of snack bars made from brown rice flour and kepok banana puree as snacks for soccer players. This study used four treatments with a ratio of soybean flour : brown rice flour : plantain puree, namely F0 = 48:0:0, F1 = 20:10:18, F2 = 15:15:18, and F3 = 10:20:18, which were applied in an experiment using a completely randomized design (CRD). The selected formulation was determined through organoleptic testing, which included color, aroma, taste, and texture. The best formula was then analyzed for proximate and energy content. The results showed that formula F3 had the highest acceptability score of 3.72. The nutritional composition per 100 g in formula F3 was 25.98% moisture, 1.50% ash, 14.71% fat, 13.70% protein, 44.10% carbohydrates, and 431.7 kcal energy. Formula F3 had a 9.85% increase in carbohydrate content and an 11 kcal increase in energy compared to the control formula. Researchers are advised to reduce the moisture content to meet snack bar quality standards, which can be achieved by optimizing the baking temperature and time.*

**keywords :** soccer players, brown rice, plantains, snack bar.