

**FORMULATION OF ENERGY BAR
WITH DESICCATED COCONUT CHIPS AND
FRUIT LEATHERS**

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Addition

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ABSTRACT

Energy bars have been posting double digit growth rates due to modern life style. This study was conducted at CBL Natural Foods (Pvt) Ltd to develop an energy bar with desiccated coconut chips and fruit leathers focusing international market. Energy bar consisting desiccated coconut with cereals, fruits and nuts tend to be high in nutritional value.

The specific objectives were to determine ratios of ingredient mixtures, sensory characters, shelf-life, proximate analysis, cost analysis with packaging material and designing. Considering the nutritional value of ingredients, eight treatments were selected as three factor factorial design. Broken desiccated coconut chips, fruit leather pieces, cashew pieces, powdered green gram and soybean were mixed together and added sugar as the binding agent.

Sensory evaluation for prepared samples was conducted by eleven experienced evaluators and data were analyzed using Friedman test. There were significance difference ($P = 0.05$) between the treatments regarding physical appearance, color, taste, texture, aroma and overall acceptability. The formulated energy bar with 10.5 % desiccated coconut chips, 12.2 % fruit leather, 3.36 % cashew, 28 % sugar, 28.21 % green gram and 17.54 % soybean was found as superior in quality. The selected mixture was used to make bars with nearest 62 g and packaged in laminated aluminum coated pouches. Protein, fat, carbohydrates, ash, fiber were analyzed and those were in standards of energy bars. Level of Ca, Mg, Fe, Cu and Zn were determined through mineral analysis.

Its stability was continuously monitored for one month. Percentage of moisture was slightly decreased with the time, but not harmful for consumption. FFA was not changed with the time and pH has not changed significantly. Final package was prepared as SLSI standards and cost of the final product was determined.

Key words: Desiccated coconut, energy bar, calorie, proximate analysis