

DEVELOPMENT OF BAKED COCONUT CHIPS IN COMPARISON WITH DRIED COCONUT CHIPS

Ms. Sruthi C K*

**Assistant Professor, Department of Food Science and Nutrition, Nehru Arts and Science College, Coimbatore*

Abstract

The Coconut Chips are crispy in nature and in ready-to-eat form. No frying is required before the consumption. It has its own coconut flavor as no oil is used for frying. It can be used as a snack food. Coconut is a delicious superfood that will keep you satiated and healthy. It contains protein, healthy fats, micronutrients, and vitamins which are beneficial to your overall health. Coconut also has antimicrobial and antiviral properties, which help boost the immune system and ward off various diseases. Apart from being insanely delicious, coconut chips are perfect for blood pressure, blood sugar and cholesterol level regulations. This additive snack helps boost energy levels and increase metabolism in the body. The baking has an alternative method to drying with markable increasing the nutritional and sensory characters of sample. The osmotically treated and non-treated samples with different slicing size were showing some variation in biochemical and sensory evaluation.

Introduction

The term coconut refers to the seed or the fruit of the coconut palm, *Cocos nucifera* L,. It provide food for millions of people, therefore it is called as “tree of life”. It is rightly eulogized as ‘kalpavriksha’ in India. It is cultivated for its multiple uses, namely food, nutritional pharmaceutical, cosmetics and medicinal values. It is cultivated in more than 95 countries across the world. Indonesia, Philippines and India constitute more than 70 percent of area and production of coconut at global level. In India, coconut production is largely confined to Southeastern states (Kerala, Karnataka, Tamil Nadu and Andhra Pradesh). Most of the widely used consumed snack foods are high in refined carbohydrates or added sugar and low in nutritional value. Non-diet soft drinks, cookies, candy, pastries, granola, bars, chips, pretzels and crackers generally contain more calories and are less satiating than fruits, vegetables, whole grains, nuts and seeds. Coconut Chips are longer, wider pieces of coconut then what you’ll find in a bag of traditional shredded coconut. The strips of coconut are roasted in an oven until they are dry and crisp, with texture that is more similar to that of a potato chip than the chewy strands of most shredded, unroasted coconut. They are rich in fibre and MCTs, it may offer a number of benefits, including improved heart health, weight loss and digestion. It’s also high in calories and saturated fat, so you should eat it in moderation. The chips are also a good choice for snacking as their size makes them more satisfying than a handful of shredded coconut. Sugar is naturally found in many foods, including fruits, vegetables, dairy, grains, and even nuts and seeds. This natural sugar can be extracted to produce the refined sugar currently so abundant in the food supply. As a smoothie topper – coconut chips make the perfect smoothie garnish. Not only do they look pretty but they’ll give your smoothie some chew, so you don’t just slurp it down in a second. In a homemade trail mix with cacao nibs, raw almonds and goji berries... or try an Asian-style combo by mixing coconut chips mixed with tamari almonds – delish! Mixed through your porridge or bircher muesli for some crunch and sweetness – a great way to bump up the fibre and healthy fat content of your brekkie.

Materials and Methods

The present study was undertaken to prepare Coconut Chips. The product was prepared by using standardized protocol.

MATERIALS

Mature Coconut, Sugar, Salt, Vanilla essence,

EQUIPMENTS

Power operated coconut dehusker, Coconut deshelling machine, Power operated multi commodity coconut slicing machine, electrical dryer, baking oven.

METHODS

Preparation

1. Removal of husk
2. Removal of shell
3. Removal of testa
4. Slicing of kernel
5. Blanching
6. Preparation of osmotic medium
7. Osmotic dehydration
8. Drying
9. Drying
10. Baking
11. Packaging of chips
12. Proximate analysis
13. Determination of moisture content:
14. Determination of ash content
15. Determination of fat Soxhlet method
16. Total Phenol
17. Determination of Carbohydrate
18. Antioxidant activity

Result and Discussion

Coconut chips are one of the best nutritional and part time snack which can also be a part of the diets. The comparative analysis of nutritional properties of coconut chips processed with drying and baking with different slicing size (1.5 mm & 0.75 mm) with and without osmotic dehydration promising that baked sample had higher nutritional properties and sensory acceptance than dried sample. Among all the eight samples 0.75 mm baked osmosed sample had higher phenol, carbohydrate and free radical scavenging activity than other treatments. It has also showing lower moisture and fat content that would be promising the healthy intake of coconut chips.

The study was conducted for development and optimization of process protocol for the production of baked coconut chips were successfully proven that baking has an alternative method to drying with markable increasing the nutritional and sensory characters of sample. The osmotically treated and non-treated samples with different slicing size were showing some variation in biochemical and sensory evaluation. When comparing with conventional drying and baking process, baking has come over the draw back like prolonged time consumption found in drying. The sample having with osmotic dehydration exhibited high sensory acceptance than others.

Reference

1. Abdul HS, Zafar Iqbal M. Chemical composition of meat (kernel) and nutwater of major coconut (*Cocos nucifera*) cultivars at coastal area of Pakistan. *Pak J Bot.* 2011;43(1):357–363
2. AOAC . Official Method of Analysis. Association of Official Analytical Chemists. 17. Maryland: Gaithersburg; 2000.

3. AOCS Official methods of the American Oil Chemists Society (1997) AOCS method no. Ac 2–41. American Oil Chemists Society, Champaign
4. Apriyanto, M., Marlina, B. F. S., Rifa, A., & Riono, Y. (2021). A SWOT analysis to improve the marketing of young coconut chips. *Annals of the Romanian Society for Cell Biology*, 13232-13240.
5. Barlina, R., Trivana, L., & Manaroinsong, E. (2019). Effect of Immersion in Calcium Chloride Solution on the Characteristic of Coconut Chips during Storage. *Cord*, 35(01), 10-10.