

Composition of Banana-Turmeric Cookies

Technical Field

This utility model relates generally to food products but more specifically to the production of banana-turmeric cookies.

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Background of the Utility Model

The development of functional food products has continued to expand in response to growing consumer demand for healthier, nutritious, and locally sourced products. In the Philippines, one of the emerging raw materials with high utilization potential is honey banana, a native variety known for its distinct sticky texture, high starch content, and suitability for flour production. According to the Food and Nutrition Research Institute (FNRI, 2021), bananas remain among the country's most accessible and nutrient-rich crops, and the use of banana by-products and banana-based flours has been encouraged to support food security, reduce waste, and promote value-adding in rural communities. Honey banana offers a favorable carbohydrate profile that makes it a viable substitute for wheat flour in bakery applications. Honey banana is an agricultural product, a starchy variety commonly cultivated in Camarines Sur. Unlike dessert-type bananas often used in pastries, honey bananas are rich in resistant starch and fiber, making it a promising alternative flour source for functional food products.

In addition, turmeric powder has been long recognized as a natural antioxidant and anti-inflammatory ingredient that can enhance nutritional value and provide functional benefits, particularly due to its curcumin content. Turmeric (*Curcuma longa* L.) is an indigenous spice recognized for its bioactive compound curcumin, which exhibits antioxidant, anti-inflammatory, and functional health properties. The Department of Health (DOH) and the Philippine Institute of

5 Traditional and Alternative Health Care (PITAHC), through Republic Act No. 8423 or the Traditional and Alternative Medicine Act of 1997, identify turmeric as a recognized herbal plant with established therapeutic potential. Its integration into food products is aligned with global trends toward functional and preventive nutrition. The combination of these two locally available ingredients
10 aligns with sustainable food development goals while catering to increasing consumer interest in healthier snack options.

A review of closest prior art demonstrates that while banana-based cookies and functional biscuits exist, no one discloses a cookie product combining honey banana flour and turmeric powder, thereby establishing the
15 uniqueness of the present utility model. Prior art number CN102461628A describes banana cookies formulated using banana purée with butter, oatmeal, walnuts, and sugar, but does not utilize banana flour nor the honey banana variety. Prior art number PH22017000279U1 introduces cookies made from banana peel rather than banana flesh or flour. In addition, prior art number
20 CN107136162A discusses banana biscuits with added herbal extracts for digestion but again uses banana purée rather than flour. The prior art number CN104255884A presents low-glycemic biscuits using green banana flour, yet no honey banana or turmeric is included. Finally, prior art number KR101985151B1 involves cookies containing oats, tofu, and turmeric, but does
25 not combine turmeric with banana flour nor does it use any banana-based ingredient. These distinctions are documented in the uploaded prior art comparison table

Collectively, the prior art shows that banana-based products and turmeric-based functional snacks have been individually established, but no
30 existing formulation merges local honey banana flour with turmeric powder to develop a nutrient-enhanced cookie product. This gap highlights the novelty and practical relevance of the present utility model. The innovation supports local agriculture by providing value-added utilization of a starchy banana variety, introduces turmeric as a functional enhancer in a banana-based cookie,
35 and addresses consumer demand for healthier snack alternatives made from

5 sustainable, regionally available ingredients. Moreover, the formulation of
banana-turmeric cookies also responds to national priorities on food security as
reflected in the Philippine Development Plan (NEDA, 2023–2028), which
highlights the need to develop innovative food products that use indigenous
crops and promote community livelihood. The use of honey banana flour
10 reduces reliance on imported wheat while valorizing local crops, and turmeric
powder adds functional value aligned with consumer preferences for health-
oriented snacks.

Thus, this utility model is introduced to provide a nutritious, affordable,
and locally sourced Banana–Turmeric product, specifically formulated using
15 honey banana flour and turmeric powder. The model contributes to food
security efforts by transforming abundant raw materials into a shelf-stable,
functional product suited for community-level production and broader
commercialization. It integrates indigenous ingredients, functional nutrition, and
local resource optimization, thereby contributing to the broader goals of food.

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Summary of the Utility Model

It is the primary object of the present utility model to provide an
alternative snack that is nutritious made from locally sourced ingredients. The
cookie provides a nutritious and locally sourced alternative ingredients by
25 combining two indigenous Philippine ingredients known for their health-
promoting properties. Honey banana flour offers high starch content, while
turmeric contributes natural antioxidants and anti-inflammatory compounds,
particularly curcumin. These banana-turmeric cookies are another variation of
commercial cookies existing in the market which can be eaten as snacks.

30 Another object of the present utility model is to provide a new snack
made from honey banana flour and turmeric which contains nutrients such as
carbohydrates, total fat, moisture, protein, ash and crude fiber.

5 Still an object of the present utility model is to provide low cost and affordable banana-turmeric cookies.

Detailed Description of the Preferred Embodiments

Having known the different products that can be derived from lagkitan banana and turmeric root, the following are the composition and process of
10 Banana-Turmeric Cookies.

The composition of cookies enhanced with lagkitan banana flour and turmeric powder consisting of the following ingredients:

34.86% banana flour, 2.79% turmeric powder, 15.77% butter, 27.9%
sugar, 13.95% eggs, evaporated milk 4.19%, baking soda 0.33%, and salt
15 0.21%.

The process of producing banana-turmeric cookies comprising the steps of; select the matured green honey banana, wash and peel the banana. Slice the banana into thin about 3-4mm slices for drying. Place and arrange the banana slices on a baking sheet, dry the sliced banana on oven in 60°C for 6-
20 7 hours until brittle. Cool the dried banana for 30-45 minutes. Mill or grind in food processor or grain mill to a fine powder. Sieve the banana flour to remove coarse slices. Set aside the honey banana flour. For the turmeric, wash and peel the turmeric, slice the turmeric into thin slices, arrange the thin slices into tray for drying, dry the turmeric in an oven with 60°C for 4-5 or until brittle. Cool
25 the dried turmeric, mill or grind turmeric and pass through a sieve. Set aside the turmeric. Then, prepare and measure the cookie mixture, in a clean mixing bowl, mix all dry ingredients such as banana flour, turmeric, baking powder, and salt. Then set aside, in another bowl, cream the butter and sugar until light and fluffy, then add the eggs gradually. Add the dry ingredients to the mixture.
30 Add the evaporated milk and mix well. Put the cookie mixture in a pastry bag and place on the baking sheet with parchment paper following the desired shape. Leave at least 2-3 inches space between cookies. Bake the cookies for 10-12 minutes at 175°C (350°F) or until the edges turn slightly golden brown.

- 5 Then allow the cookies to cool completely and store them in an airtight container.

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