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RESEARCH ARTICLE

STUDY ON DEVELOPMENT OF FLAT WHEAT NOODLES USING BAUHINIA VARIEGATA LEAVES

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ABSTRACT

This study aims at development and quality assessment of bauhinia Variegata noodles. Bauhinia Variegata is a leaf with high medicinal properties. Bauhinia Variegata is known by several names such as Kanchnar, Sivappu Mantharai and mountain ebony. The experimental product was formulated using wheat flour, egg, bauhinia Variegata leaves. The experimental product was formulated in three variations (V1, V2 and V3). Different cooking methods and ingredients were used in the variations. The experimental V2 was found to be more acceptable than the other variations. The experimental V2 were subjected to Physico chemical analysis and sensory analysis. The various Physico chemical analyses were moisture content, ash content, bulk density, swelling capacity and water absorption capacity.

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INTRODUCTION

Bauhinia Variegata is known by several names such as Kanchnar, Sivappu Mantharai and mountain ebony. It is grown in gardens and along the roadsides. The leaves are shaped like camels hoof print. Various parts of the bauhinia Variegata tree have variety of uses, edible and eaten as a vegetable. Bauhinia Variegata tree parts have many medicinal properties like antibacterial, ant-fungi, anti-oxidant, for treating intestinal worms, ulcers and disorders.

MATERIALS AND METHODS

Preparation of bauhinia variegata noodles: In the present investigation, the noodles were prepared using wheat flour, eggs, turmeric, oregano, chilli flakes, salt and bauhinia Variegata noodles.

Procurement of ingredients: Flour, egg, salt, turmeric, oregano, chilli flakes were procured from a local market located in Chennai. Bauhinia Variegata leaves was procured from a local resident in Chennai.

Preparation of leaves

- Bauhinia Variegata leaves was freshly plucked from a local resident.

- The leaves were cleaned, washed with running water and destemmed.
- The leaves were boiled in 30ml of water until soft and tender.
- After boiling the leaves were allowed to cool and blended to a paste like consistency using a food processor.

Preparation of noodles

- The processed leaf paste was mixed with egg and beaten till fluffy.
- To the mixture, salt, chilli flakes, oregano and flour was added.
- Gradually wheat flour was added to the mixture and made into fine dough.
- The dough was placed on a clean surface and kneaded well for ten minutes.
- The dough was rolled out into a sheet of desirable thickness and allowed to rest for 20 minutes.
- After resting, the sheet was cut into thin strips of 1cm each and was tray dried for an hour.

Preparation of standard

The experimental was formulated in four variations (V1, V2 and V3). Different quantity of the ingredients was added in the experimental variations.

- V1 was formulated using 22.52% egg, 67.56% of Maida, 4.50 % of bauhinia Variegata leaves, 0.90% of turmeric, 2.25% of oregano and 2.25% of chilli flakes.

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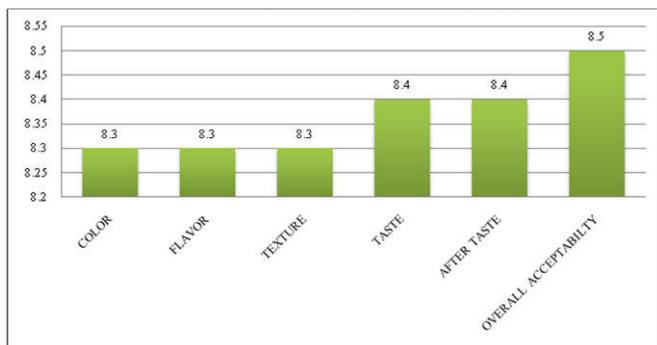
- V2 was formulated using 22.52% egg, 67.56% of wheat flour, 4.50 % of Bauhinia Variegata leaves (boiled), 0.90% of turmeric, 2.25% of oregano and 2.25% of chilli flakes.
- V3 was formulated using 22.52% egg, 67.56% of wheat flour, 4.50 % of Bauhinia Variegata leaves (sautéed in oil), 0.90% of turmeric, 2.25% of oregano and 2.25% of chilli flakes.

The Experimental V2 was found to be more acceptable than the other variations. Thus V2 was chosen as the standard and the experimental V2 was subjected to Physico-chemical analysis (Moisture content). Sensory evaluation was conducted for all variations using 9 point hedonic scale with 30 semi trained panellists.

Physico Chemical test

TEST	DATA
Moisture	9.18%
Ash	2.88%
Bulk density	0.72 g/ml
Water-absorption capacity	1.2 ml/g
Swelling capacity	3.2g

SENSORY EVALUATION



Analytical procedure

The experimental noodles were subjected to physico-chemical analysis such as moisture, ash, bulk density, swelling capacity and water absorption capacity to the dried product.

The physico –chemical analysis were carried out using standard procedures from “Handbook of analysis and quality control for fruit and vegetable products – Ranganna”. Sensory Analysis – Sensory analysis was carried out for the product using a nine – point hedonic scale 15 semi-trained panellist were selected and the product was evaluated on attributes like color, flavour, taste, aroma and overall acceptability on a 9-point hedonic scale (9=like extremely and 1 = extremely dislike). Sensory analysis was carried out for the cooked product.

RESULTS AND DISCUSSIONS

The noodles was analysed for its physico-chemical and sensory characteristics. The results are discussed below.

Conclusion

Physico chemical and sensory analysis of Bauhinia Variegata noodles was analysed. The moisture content of the product was found to be low, which aids in increasing the shelf life of the product. The noodles had good water absorption and swelling capacity resulting in good texture to the product. Bulk density plays an important role in extruded products and the bulk density of the noodles was within an acceptable range. The noodle was also found to acceptable among the sensory panellists. Thus bauhinia variegata noodles serves as a nutritious food with good taste and acceptability

REFERENCE

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