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To standardization and sensory evaluation of colocasia leaves based products

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Abstract

Colocasia leaves are green coloured heart shaped leaves of the plant which is rich in many nutrients. When buying these leaves look for light and bright green leaves which are fresh, not limp. It is known as taro. Colocasia leaves are low in calories, high in fiber, and high in micronutrients. This contributes to several potential health benefits, and preventing disease. The nutritive value of most acceptable was calculated with the help of “food composition Table, given by ICMR (2010)”. The objective of present investigative was colocasia leaves as a:-Product Enrichment Sensory Evaluation was to standardized and develop the product using colocasia leaves and their sensory evaluation. The development products were given to the panel of judge product were tested for flavour and taste, body and texture, colour and appearance and overall acceptability the organoleptic evaluation of product was done by using score card method (9 point hedonic scale).The result of colocasia leaves based product saag, paratha, tikki kofta and cutlet (T1) were best in all treatments in case of all sensory attributes. The overall acceptability experimental sample (T1) saag, Paratha, Tikki, kofta and cutlet were 8.5,8.5,8.8,8.7,8.5.

Keywords: Colocasia leaves, medicinal plant, product, enrichment

Introduction

Colocasia leaves are heart shaped and is medium to large size measuring 40 centimeters in length and 20 centimeter in width. Leaves are smooth and dark green on surface or light green on Underside. During the fourth or fifth month, leaf size, leaf dry weight, leaf area, leaf area index and plant height reach their maximum values. Here are any herbs that are used to treat liver, cardiovascular, digestive, metabolic and central nervous system (CNS) disorders. Taro leaves are very rich in vitamin C which is an antioxidant and has numerous health benefits. The taro leaves and roots both contain nutrients and are fit for consumption. Taro is also known as colocasia or elephant ear. The taro leaves rich in protein content (23%) found might be favourably complemented the high carbohydrate contents (87%) found in the tuber part of the plant as a source of human food. Medicinal plants or herbal drugs and their extracts containing isolated compounds have showcased a wide spectrum of biological activities. The leaves of colocasia leaves have been reported to be rich in nutrients including minerals and vitamins such as phosphorous, calcium, vitamin C, iron, riboflavin, thiamine and niacin. Akter *et al.*, (2013) [4] reported on demonstrated the antihyperglycemic potential of methanolic extracts of Colocasia esculenta leaves which significantly reduced the blood sugar concentrations by 44.7% in glucose-loaded Swiss albino mice. The leaves were sliced, air-dried and grounded into fine powder and 100 g of powder was extracted methanol (1:5, w/v). One of the groups received a standard drug Glibenclamide, whereas other groups received methanol extracts of Colocasia leaves at various doses. It was found that methanolic extracts had approximately 1.4 times higher effect than the reference drug.

Method and Material

The present investigation entitled “To Standardization and Sensory evaluation of Colocasia leaves based product” was carried out to standardized arrowroot based product. The study was conducted in department of food and nutrition, faculty of home science, KNIPSS Sultanpur.

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Justified, judicious and scientific methodological consideration is indispensable for any investigation to deduce meaningful interferences concerning the objectives of the study, the study design reflects to the logical manner in which units of the study are assessed and analyzed for the purpose of drawing generalization. Thus, with the view of available resources, the best procedures for taking correct observation should be first sorted out in a logical manner so that unbiased interference can be drawn. This chapter delineates information pertaining to the research design and methodological steps used for investigation. The research procedures has been distinctly described as under in the following heads:

- Procurement of material.
- Processing of row material.
- Development of pineapple based products.
- Sensory evaluation.

Calculating nutritive value.
Statistical analysis.

Procurement of materials

For the present investigation material i.e. Colocasia leaves was produced from the local market of Sultanpur city. The procuring was done in single a lot to avoid variation compositional differences so that the quality differences should be ruled out.

Processing of raw Material

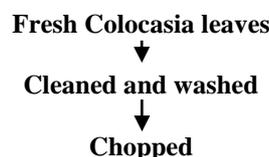


Table 1: Colocasia Leaves Saag

Ingredients	Amount	
	Control (T0)	Experimental (T1)
Colocasia leaves	-	250gm
Radish leaves	250gm	-
Garlic	1.5gm	1.5 gm
Ginger	1.5gm	1.5 gm
Oil	3gm	3gm
Green chilli	1.gm	1.gm
Salt	According to taste	According to taste

Method

- Wash the colocasia leaves, them and transfer into the same bowl.
- Cut the colocasia leaves pieces and transfer into a bowl.
- Heat oil in a non-stick pan.
- Add the ginger, garlic and green chilli.
- Add the colocasia leaves. Mix well.
- Add adjust the salt and Mix well and cook for 3-4 minutes.
- Mix again and cook till the leaves is soft. And Serve hot.

Table 2: Colocasia Leaves Paratha

Ingredients	Amount	
	Control (T0)	Experimental (T1)
Colocasia leaves	-	125gm
spinch	125gm	-
butter	2.5gm	2.5gm
Salt	According to taste	Accordind to taste
Wheat flour	100gm	100gm
Turmeric powder	1.5 gm	1.5gm
Coriander powder	1.5 gm	1.5gm
Trachysprnum ammi	1gm	1gm
Mango powder	1.5gm	1.5gm

Method

- Take a Wheat Flour
- Add Chopped Colocasia Leaf And Mix
- Add A Coriander Powder Turmeric Powder
- Trachyspernum and Mix Well All Ingredients.
- Add mango powder and salt to taste
- Heat a pan and cooked paratha with butter
- Then hot serve.

Result and Discussion

The data were collected on different aspects per plan were tabulated and analyzed statistically. The result from the

analysis presented and discussed chapter in the following sequence.

- Flavor and tast.
- Body and texture.
- Color and appearance.
- Overall acceptability.

Table 3: Organoleptic evaluation of colocasia leaves saag

Product	Flavor & taste	Body & texture	Color & appearance	Overall acceptability
T0(control)	7.2	7.2	7	7.3
T1(experimental)	8.5	8	8.5	8.1

Table 3 show that the experimental (T1) obtained maximum 8.5, 8, 8.5,8.1, for flavor & taste, body and texture, color and appearance and over all acceptability, while control (T0) obtained minimum 7.2, 7.2, 7, 7.3 for flavor & taste, body and texture, color and appearance and over all acceptability respectively. This indicated that the experimental (T1) ssag was found to be fallen under category of “Liked Extremely”.

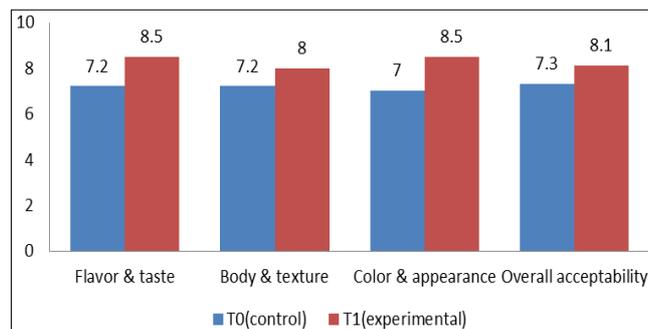


Fig 1: That the experimental (T1) obtained maximum

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