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Efficacy and enrichment of product by incorporating basil leaves

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Abstract
The objective of present investigation was Efficacy& Enrichment of product by incorporating basil leaves'' refer to basil leaves based products. In view of the facts regarding nutritional quality of basil leaves (ICMR, 2010) was made to develop acceptable basil leaves based products. Develop basil leaves was used for development of standardized products i.e. basil tomato pesto, cucumber basil juice, basil chutney, garlic basil soup, and tomato basil pulav. The organoleptic evaluation of products was done by using score card method (9-Point Hedonic Scale). The result of basil leaves based products, for basil tomato pesto, cucumber basil juice, basil chutney, garlic basil soup, and tomato basil pulav.(T1) were best in all treatments in case of all sensory attributes. The overall acceptability of experimental (T1) basil leaves. Basil tomato pesto, cucumber basil juice, basil chutney, garlic basil soup, and tomato basil pulav. Were 8.7, 8.9, 9.0, 9.0, and 8.6, respectably.

Keywords: Ocimum, COX-2 inhibitor, eugenol, Ayurvedic properties, Phytochemistry Adaptogen, Ayurveda, holy basil, lifestyle, *Ocimum sanctum*, stress, tulsi

Introduction
Basil is possibly native to India has been cultivated there for more than 5,000 years. It was thoroughly familiar to the Greek authors Theophrastus and Dioscorides. It is a hardy annual plant, best known as a culinary herb prominently featured in Italian cuisine, and also plays a major role in Southeast Asian cuisines of Indonesia, Thailand, Malaysia, Vietnam, Cambodia, Laos, and Taiwan. Depending on the species and cultivar, the leaves may taste somewhat like anise, with a strong, pungent, often sweet smell.

Basil, the "queen of herbs" is the most sacred of all the herbs found in India! This sacred plant is found in almost every Indian household. Tulsi has been used in India for around 5000 years and is acclaimed for its healing properties of the mind, body and spirit. Tulsi has been widely popular in South Asian countries for many centuries and now is also gaining popularity in the West. Most commonly known as "Tulsi" or "Tulsi" (Hindi) in India, the basil plant is a leafy herb belonging to the mint family. The scientific name of Tulsi is Ocimum Tenuiflorum and is its English term in Basil. There are three variants of Tulsi; Rama Tulsi, Krishna Tulsi, and Vana Tulsi. Each of the variants has its own distinctive taste. The parts of Tulsi generally used are its leaves, seeds and dried roots.

The extract obtained from Tulsi plants is used to cure various diseases such as common cold, inflammation, malaria, heart diseases, and many more. Tulsi contains hundreds of beneficial compounds and possesses strong antioxidant, antibacterial, antiviral, adaptogenic, and immune enhancing properties. Tulsi also aids in the purification of the atmosphere. It has been used for centuries as an important component of Ayurveda for its diverse healing properties. Tulsi is considered to be an adaptogenic, balancing different processes in the body and enabling the body to adapt to stress. Marked by its strong aroma and astringent taste, it is regarded in Ayurveda as an "elixir of life" and is well known to promote longevity. It is because of these numerous benefits that "Tulsi medicinal plant" is worshiped as a goddess in India!

Objectives
To enrich and develop products by incorporating basil leaves.

Materials and Method

The present investigation entitled "standardization and development of basil leaves based products" was carried out to standardize basil leaves and its products. The study was conducted in department of food and nutrition, faculty of home science, KNIPSS Sultanpur.

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 generalizations. 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 drown. This chapter delineates information pertaining to the research design and methodological steps used for investigation. The research procedure has been distinctly described as under in the following heads:

Procurement of material

For the present investigation material e.g., basil 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 basil leaves

This material was subjected to cleaning, washing and chopped in the following manner.

Cleaning and washing

Basil leaves was washed 2-3 times with tap water and then rinsed with water to remove dirt, dust and other adhering impurity.

Cutting

Basil leaves.

Development of Basil leaves based products

The best acceptable powder was used for product development as follows:

A: cucumber basil juice

Ingredients	Amount Control	Amount Experimental
Cucumber	2 piece	2 piece
Basil leaves	--	60 gm.
Salt	Acc.to taste	Acc.to taste
roasted cumin powder	1/2 teaspoon	1/2 teaspoon
black pepper powder	1 pinch	1 pinch
Lemon	1 piece	1 piece
Pineapple	60 gm.	--

Method

- Washed the cucumber and basil leaves.
- Blend the all ingredient.
- Filter the cucumber, basil leaves liquid.
- Took a glass and filter liquid juice.
- Added salt, roasted cumin powder, black pepper powder, and lemon juice.

B: tomato basil pulav

Ingredients	Amount Control	Amount Experimental
Basmati rice	2 cup	2 cup
Basil leaves	-	25 gm.
Carrot, green peas, cauliflower	Acc.to use	Acc.to use
Salt	Acc.to taste	Acc.to taste
Refined oil	2 table spoon	2 table spoon
Dry mango powder	2 table spoon	2 table spoon
Chat masala	1spoon	1spoon
Bhav bhaji masala	1 spoon	1 spoon
Cumin seeds	½ teaspoon	½ teaspoon

Method

- Heated oil (or olive oil) in a deep non stick pan. Dice the potatoes. Add cumin seeds to the pan and when they change color, add potatoes and stir.
- Covered and cooked for 2-3 minutes. Added 3 cups water and salt and mixed.
- When the water comes to a boil, add rice, tomato and basil pasta sauce and mixed well.
- When the mixture comes to a boil again, added green peas and mix.
- Cover and cook on medium heat till the rice and vegetables are done.
- Serve hot.

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 fallowing sequence.

Calculation of nutritive value of basil leaves.
Organoleptic evaluation of basil leaves based products.
Calculation of nutritive value of basil leaves:

Nutrients	Total
Energy	23 kcal.
Total Fat	0.64 g
Carbohydrates	2.65 g
Dietary Fibres	1.60g
Protein	3.15g

The nutritive value of most acceptable was calculated with the help of "Food Composition Table" given by ICMR (2010). Table shows that the total energy, protein, fat and CHO. Value of most acceptable basil leaves was 103.4kcal. 0.4g. and 8.06g. Acceptability.

Organoleptic evaluation of basil leaves based products.

- Flavor and taste.
- Body and texture.
- Color and appearance.
- Over all acceptability.

Table 1: Organoleptic evaluation of cucumber basil juice

Product	Flavor& taste	Body \ texture	Color & appearance	Overall acceptability
T0(controlled)	8.2	8	7.9	8.2
T1(experimental)	8.9	8.9	8.9	8.9

Table 1 shows that the experimental (T1) obtained maximum 8. 9,8. 9, 8.9 and 8.9 for flavor & taste, body & texture, color & appearance and overall acceptability; while control (T0) obtained 8.2, 8.0,7.9, 8.2 for flavor &taste, body & texture, color & appearance and overall acceptability respectively. This indicated that the experimental (T1) cucumber basil juice was found to be fallen under category of "Like Extremely".

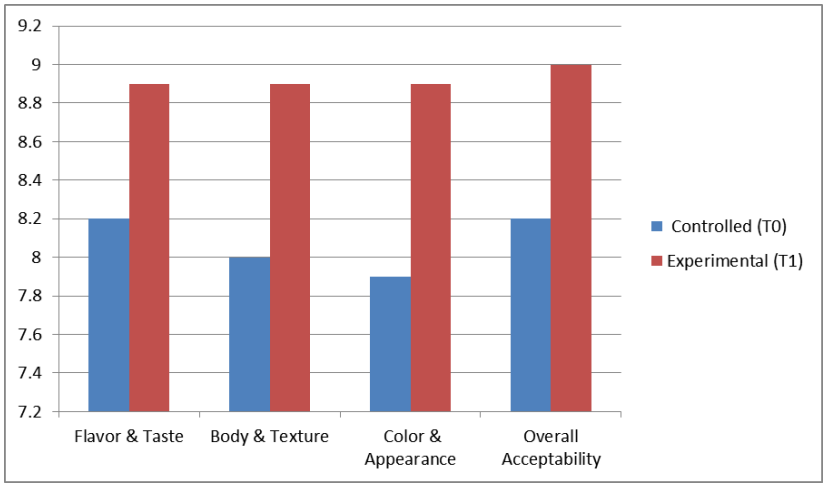

Fig 1: Mean overall acceptability of cucumber basil juice

Table 2: Organoleptic evaluation of tomato and basil pulav

Product	Flavor& taste	Body \ texture	Color & appearance	Overall acceptability
T0(controlled)	8	7.6	7.7	7.7
T1(experimental)	8.6	8.4	8.3	8.6

Table 2 shows that the experimental (T1) obtained maximum 8.6, 8.4, 8.3 and 8.6 for flavor &taste, body & texture, color &appearance and overall acceptability; while control (T0) obtained 8, 7.6, 7.7 and 7.7 for flavor &taste, body & texture, color & appearance and overall acceptability respectively. This indicated that the experimental (T1) tomato and basil pulav was found to be fallen under category of "Like Extremely".

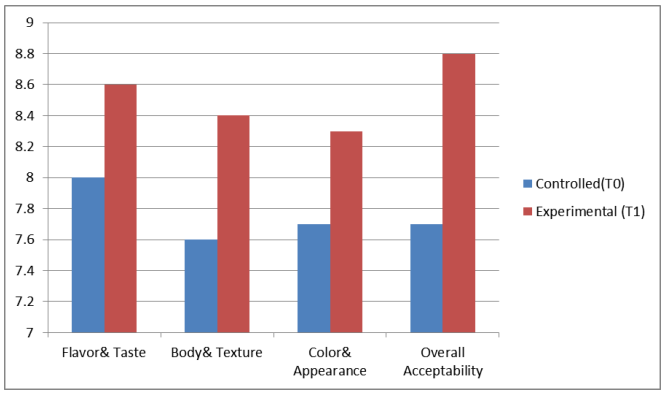

Fig 2: Mean overall acceptability of tomato and basil pulav

Summary & Conclusion

The experimental work was carried out in the department of Food & Nutrition, Faculty of Home Science, KNIPSS Sultanpur.

In view of the facts regarding nutritional quality of basil leaves (ICMR, 2010) was made to develop acceptable basil leaves based products. The products were marked as T0 for (control) contains no basil leaves and T1 (experimental) contains developed and selected basil leaves.

Experimental (T1) obtained maximum 8. 9,8. 9, 8.9 and 8.9 for flavor & taste, body & texture, color & appearance and overall acceptability; while control (T0) obtained 8.2, 8.0,7.9, 8.2 for flavor &taste, body & texture, color & appearance and overall acceptability respectively. This indicated that the experimental (T1) cucumber basil juice was found to be fallen under category of "Like Extremely".

(b) The experimental (T1) obtained maximum 8.6, 8.4, 8.3 and 8.6 for flavor & taste, body & texture, color &appearance and overall acceptability; while control (T0) obtained 8, 7.6, 7.7 and 7.7 for flavor &taste, body & texture, color & appearance and overall acceptability respectively. This indicated that the experimental (T1) tomato and basil pulav was found to be fallen under category of "Like Extremely".

The highest average score for all acceptability was found in experimental products made by developed basil leaves based were mostly accepted by panel member.

References

1. Baritaux O, Richard H, Touche J, Derbesy M *et al*. Effects of drying and storage of herbs and spices on the essential oil. Part I. Basil, Ocimum basilicum L. Flavour and Fragrance Journal. 1992; 7(5):267–271. doi:10.1002/ffj.2730070507
2. Eberhard Breitmaier. (22 September 2006). Terpenes: Flavors, Fragrances, Pharmaca, Pheromones. John Wiley & Sons. pp. 11–. ISBN 978-3-527-31786-8. Retrieved 2 August, 2013. Acyclic monoterpenoid trienes such as p-myrcene and configurational isomers of p- ocimene are found in the oils of basil (leaves of Ocimum basilicum, Labiatae), bay (leaves of Fimenta acris, Myrtaceae), hops (strobiles of Humulus lupulus.
3. Fandohan P, Gnonlonfin B, Laleye A, Gbenou JD, Darboux R, Moudachirou M *et al*. "Toxicity and gastric tolerance of essential oils from Cymbopogon citratus, Ocimum gratissimum and Ocimum basilicum in Wistar rats. Food and Chemical Toxicology. 2008; 46(7):2493-2497. doi:10.1016/j.fct.2008.04.006. PMID 18511170.
4. Jeffrey Harborne B. Herbert Baxter (30 August 2001). Chemical Dictionary of Economic Plants. John Wiley & Sons. pp. 68–. ISBN 978-0-471-49226-9. Retrieved 2, 2013.

5. Janick (ed.) J, James Simon E, Mario Morales R, Winthrop Phippen B, Roberto Fontes Vieira, Zhigang Hao. Basil: A Source of Aroma Compounds and a Popular Culinary and Ornamental Herb, reprinted from: Perspectives on new crops and new uses, ASHS Press, Alexandria, VA, 1999, ISBN 978-0-9615027-0-6.
6. Johnson Christopher B *et al*. Substantial UV-B-mediated induction of essential oils in sweet basil (Ocimum basilicum L. Phytochemistry. 1999; 51(4):507-510. doi:10.1016/S0031-9422(98)00767-5
7. Md Shahidul Islam. 4 February 2011 Transient Receptor Potential Channels. Springer. pp. 50–. ISBN 978-94-007-0265-3. Retrieved 2, 2013. Eugenol is a vanilloid contained in relatively high amounts in clove oil from Eugenia caryophyllata, as well as basil leaves leaf oil (Cinnamomum zeylanicum) and oil from the clove basil Ocimum gratissimum. While eugenol is often referred to as.
8. Pessoa LM, Morais SM, Bevilaqua CM, Luciano JH. Anthelmintic activity of essential oil of Ocimum gratissimum Linn. and eugenol against Haemonchus contortus. Veterinary Parasitology. 2002; 109(1-2):59-63. doi:10.1016/S0304-4017(02)00253-4. PMID 12383625.
9. Tulsi. The Queen of Herbs by Dr Narendra Singh and Dr Ralph Miller the Yoga of Herbs (Dr David Frawley and D ad, Lotus Press, is a great herb book.r Vasant L, 1992.