

Livelihood generation through ficus chunks: A newly developed food items from figs (*Ficus carioca*)

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Abstract

At present scenario there is a big problem of unemployment in India and all over world also. So it's time to think about to solve this problem with innovative ideas. There is a big effect on poor communities; they have no sources of income. That's why the product which is making with the help of locally easily available resources and very low cost ingredient with easy processing as its affordable and adoptable, and its can become boon for eradicating poverty by providing a sustainable source of income to farming families both in rural and urban areas specially women's. The raw ingredients which are used in this product are easily available in nature and also in local market. The product is basically based on a traditional recipe which is usually used and common in villages/rural areas. We learn and very familiar with the chunks like soya chunks, lentils chunks etc, here the product Ficus chunks process with the help of *Ficus carioca* which is highly nutritious with health benefits of diabetes, skin problems, hairs problems, improve digestibility etc. The Ficus Chunks i.e. newly developed food items from *Ficus carioca* able to provide sustainable source of income to farming families both in rural and urban areas especially to women's and helps in livelihood generation.

Keywords: entrepreneurship, employment generation, food preservatives, *Ficus carioca*

Introduction

Firstly we just know about NPD, it is basically New Product Development (NPD) which is a process of making a new thing from starting to its ending with high quality and benefits. For any new product development idea generation, idea screening, concept developing and testing, marketing strategy development, business analysis, product development, test marketing and commercialization, these are the basic steps follows during NPD processing.

The new product which is named as ficus chunks, which is made from *Ficus carioca* also known as figs (gular) is easily available in village areas and also found in city areas but on the basis of a survey most of the people not familiar with this highly nutritious tree or fruit. Figs are a good source of calcium and minerals, which can ward off osteoporosis as well as other health issues. If you want to add more antioxidants to your diet, you can't go wrong with figs. According to 2005 study ^[1] figs are good source of antioxidants. Figs are one of the richest plant source of a variety of vitamins and minerals including: - Vitamin A, Vitamin C, Vitamin K, B complex Vitamin, Potassium, Magnesium, Zinc, Copper, Magnesium and Iron. It's not just the fruits of this shrub that are healthy. Some evidences also suggest that the leaves and fruits of the figs shrubs can help regulate diabetes symptoms. A study in rats shows that ficusin, an extract from fig leaves, improves insulin sensitivity and has other ant diabetic properties ^[2]. In a 2003 animal study showed that fig extract can contribute to diabetes treatment by normalizing blood fatty acid and vitamin E levels (<https://www.healthline.com/health/figs#diabetes>). Figs are a popular ingredient in many shampoos, conditioners and hair masks. The fruits are believed to strength and moisture hair, and promote hair growth. Several studies indicates that

several nutrients found in figs help keep hair healthy. They include: - zinc, copper, selenium, magnesium, calcium, B vitamin, Vitamin C ^[4]. Due to high content of fiber in Fig, It helps to improve digestibility and relieve from constipation and relief from diarrhea. Fig trees play such a central role in healthy landscapes and species biodiversity. They have found that besides giving a free round-the-year food supply, Fig tree stabilise the soil and prevent landslides. Their roots spread and go deep into soil, forming channels that bring ground water from depth to the surface. Fig trees, in this way, play a keystone role in the planet's ecological balance.

At present scenario there is a big problem of unemployment in India and all over world also. So it's time to think about to solve this problem with innovative ideas. There is a big effect on poor communities; as they have no sources of income. That's why the product which is making with the help of locally easily available resources and very low cost ingredient with easy processing as its affordable and adoptable, and its can become boon for eradicating poverty by providing a sustainable source of income to farming families both in rural and urban areas specially women's.

Keeping in-view of above the present experiment planned and completed successfully and Chunks i.e. newly developed food items from *Ficus carioca* able to provide sustainable source of income to farming families both in rural and urban areas and helps in livelihood generation..

Materials and Methods

The material required for the preparation of Chunks i.e. newly developed food items from *Ficus carioca* are as: Raw fig (*Ficus carioca*) which is high in calories-30, sugar-6.5g, proteins-0.3g, carbohydrate 7.7g, fiber-1.2g nutrition

information is provided by the USDA for small (40g) raw fig measuring 1-1/2 in diameter. Red masoor dal (a cup of red masoor dal has 230 calories, 15 gm of dietary fibre and about 17 gm of protein) compose small quantities of flavones and pro anthocyanin. Bengal gram, closely related to the chickpea family. It is best source of protein and it's also good for diabetic patients as it has a low glycemic index. Turmeric powder, sometimes called Indian saffron or the golden spice, is highly nutritious. According to the United State Department of Agriculture (USDA) National Nutrient Database, in a tablespoon of turmeric powder contains calories-29, protein-0.91gm, fat-0.31gm, carbohydrate-6.31gm, fiber-2.1gm, sugar-0.3gm. Coriander powder is a herb that's commonly used to flavour National as well as International dishes. It comes from the *Coriander sativum* plant and is related to parsley, carrots and celery which lower blood sugar, heart-health and fight infection benefits of health problems. Amchur powder, which is also referred as mango powder, is one of the Indian fruity spice powders which contain many nutrients including vitamin A, E vitamin C and some antioxidant. Baking soda, also known as sodium bicarbonate is widely used in baking; contain nutritional value of calories, fat, cholesterol, sodium etc.

Ingredients

- Raw figs (boiled) - 500 gm
- Red Masoor dal - 250 gm (soaked overnight)
- Bengal dal. - 50 gm (soaked overnight)
- Amchur powder - 3 table spoon (tbsp).
- Baking soda - 2 table spoon (tbsp).
- Salt - 2 table spoon (tbsp).or as per taste
- Warm water - 200ml
- Turmeric powder - 4 table spoon (tbsp).
- Coriander powder - 2 table spoon (tbsp).
- Green chilies - 50 pieces

Methodology

First of all, fig cut in four parts and removes the middle part of fig. Then blanched into hot water and then in cold water. Boiled the fig properly until it can be mashed easily. Then grinded the boiled fig roughly and also grind soaked red Masoor dal and Bengal gram roughly and also green chilies with them. After that take big bowl and mix the rough paste of fig, red masoor dal, Bengal gram and chilies. Added turmeric powder, coriander powder, salt, baking soda, amchur powder and water. Mixed all the ingredients properly and blended them through hand blender properly for smoothness. Then makes small sized chunks and put them for Sun drying at least one day. After one day drying small, tasty and healthy ficus chunks prepared.

Make many types of dishes like ficus chunks gravy, ficus chunks fry, ficus curry etc. The best part of this product is that anyone can easily cook and make a dish. The process of making this product is so easy which can easily make at home. The working women mostly prefer these types of products which are easy to cook and less time taking.

Use of the product

Ingredients

1. Ficus chunks - 2 cups
2. Tomato - 2 large
3. Onion - 2 large
4. Green chilies - 10 gm
5. Ginger - garlic paste - 2 tbsp.

6. Turmeric powder - 3 tbsp.
7. Coriander powder - 4 tbsp.
8. Gram masala - 4 tbsp.
9. Curd - 4 tbsp.
10. Bay leaves - 2 leave
11. Cumin seeds - 2 tbsp.
12. Salt - as per test
13. Refined oil - 2 tbsp.
14. Potato - 2 large (chopped)

Methodology

Firstly, grinded tomato, green chilies and onions and make a paste. Then heated the oil in pressure cooker and fry the chunks for short time. After that take them out and again heated the oil and added cumin seeds, Bay leaf and ginger - garlic paste. Then added the paste in it and cooked it properly then add turmeric powder, coriander powder, gram masala, salt and curd, cook it properly. Then add chopped potatoes and fry ficus chunks in it and add 3 cups of water. After 2- 3 whistle of cooker off the gas and serve it with chapatti or rice.

Results and discussion

After the preparation of Ficus chunk we have developed two type product of Ficus chunk as F1 and F2. Now these product are ready to launch/for trial between human being for its taste, colour, odour, adoptability, sustainability, safety, etc. Keeping in view of this, these product distributed between 50 no. of family/human for its assessment/feedback/evaluation on the prescribed criteria in 9 point scale.

Impact assessment/Feedback & Evaluation

Before launching any new product in market sensory evaluation/impact assessment/feedback is the most important phase. Basically it's done on the basis of appearance, texture, flavour, taste and aroma of the final product. There are different types of test categorized on the basis type of product, for Ficus chunks 9- POINT Hedonic scale testing is best (Table-1). So this is the result of sample no F1, which extremely dislike by sensory panel.

The reason behind disliking the sample F1 is, the texture was too hard and can't easily cook and its appearance was also not good. After improving its textural quality and appearance and second testing was done by sample F2 (Table-2). So now we can say that the product is ready to launching and other formalities. Now the product is ready for next processing like quality control, packaging, retesting, storage and marketing (Table-2).

Thus according to all aspects this product has lot of health beneficial and profitable. The best part of this product is its shelf life because its shelf life is about 6 to 8 month or more. Without adding any type of preservative its shelf life is so high if we add preservative on industry level then shelf life may increase up to 2 years. This processing is very easy and can be done by house wife and local workers. If any person wants to establish a company then it's good opportunity for local peoples who become from village areas because they have lot of knowledge about traditional processing. In UP state house wife and our grandparents make some chunks of normal lentils. The idea of this product was taken from this state. According to my personal survey there are few people who know about the "Fig". The biggest advantage of this product is to employ all village communities because they

can easily make this product on small scale (Fig. 1-4).

Table 1: Impact assessment/Feedback & Evaluation

Like extremely	1
Like very much	2
Like moderately	3
Like slightly	4
Neither like nor dislike	5
Dislikes slightly	6
Dislike moderately	7
Dislike very much	8
Dislike extremely	9

Table 2: Impact assessment/Feedback & Evaluation after improving its textural quality and appearance and second testing was done by sample F2:

Like extremely	9
Like very much	8
Like moderately	7
Like slightly	6
Neither like nor dislike	5
Dislikes slightly	4
Dislike moderately	3
Dislike very much	2
Dislike extremely	1



Fig 1: Raw Figs



Fig 2: Boiled Figs and Soaked Masoor Dal and Bengel Gram



Fig 3: Proper Blending through Hand Bleder & Making Small Sized Chunks



Fig 4: Final Product with Packaging

Conclusion

It is clear from the results obtained as Ficus Chunk is a good source of many Vitamins and minerals and also easily process by the rural/urban women’s with the locally and easily available resource with minimum input. It is tasty, excellent physical appearance, good nutritive value and accepted and likes by peoples. Due to all of these it’s having golden future if an enterprises set-up by rural/urban women’s at homes and also able to sale Ficus Chunk in local market/family. Hence, concluded that the Ficus Chunks i.e. newly developed food items from *Ficus carioca* able to provide sustainable source of income to farming families both in rural and urban areas especially to women’s and helps in livelihood generation.

Reference

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