



A Study of the Results of the Use of Shatavari in Indian Food Recipes

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ABSTRACT

The present investigation on "A study of the results of the use of Shatavari in Indian food recipe" was undertaken to explore the underutilized or neglected but highly nutrient rich shatavari powder in Indian food recipes. Shatavari powder is a rich source of alcohol, phenolic compounds, alkaloids and can be utilized in Indian food recipes such as Khakhra. The prepared Khakhra were analyzed for nutritional composition. The changes occurred during storage of Khakhra were also studied.

Preliminary experiments were conducted to find out optimum level of shatavari powder for preparation of quality Khakhra. The quality Khakhra were prepared from 3gm shatavari powder and 70gm refined wheat flour. Chemical composition of shatavari powder showed that the moisture content was 6.26%, carbohydrates 54.13%, protein 12.18%, fat 0.80%, calcium 26.12 mg/100g and iron 10.17 mg/100g. The sensory evaluation of khakhra was carried out 50 people.

Proportion of Overall Acceptability in the composition of plain Khakhra is 7.6. Variation 1 which uses 3 grams of Shatavari has an overall acceptability score of 8 and variation 2 has a score of 8.02, variation 3 has a score of 7.9.

According to the results, if more asparagus is used in the preparation of khakhra, its Overall Acceptability decreases and if asparagus is not used, its Overall Acceptability content decreases.

KEYWORD : Shatavari, Khakhra, Nutrition Value, Indian recipes

INTRODUCTION :

Traditional Indian recipes have become more popular in India since the earlier times. Among the different Khakhra constitutes the most popular group. Khakhra were invented very early. They could be kept for long time because their moisture content is very low.

Shatavari (*Asparagus racemosus* Wild) a climbing ayurvedic plant, is known for its numerous activities such as hyperlipidemia, hypertension, angina, dysmenorrhea, anxiety disorders, benign prostatic hyperplasia (BPH), leucorrhoea and urinary tract infections. The shatavari root is useful in treating the ailments like dysentery, tuberculosis and diabetes. Commonly, it supports to maintain the health by giving immunity to diseases. It is considered as very good energy provider to the weak body system (Thakur and Sharma, 2015). In the studies reported above, shatavari can be used in powder form. The utilization of shatavari powder in Traditional Indian recipes particularly in Khakhra can be done. Therefore an attempt has been made to utilize characteristics of Khakhra, identifying maximum level of incorporation without adversely affecting the quality of Khakhra and improving the nutritional characteristics of Khakhra.

MATERIALS AND METHODS :

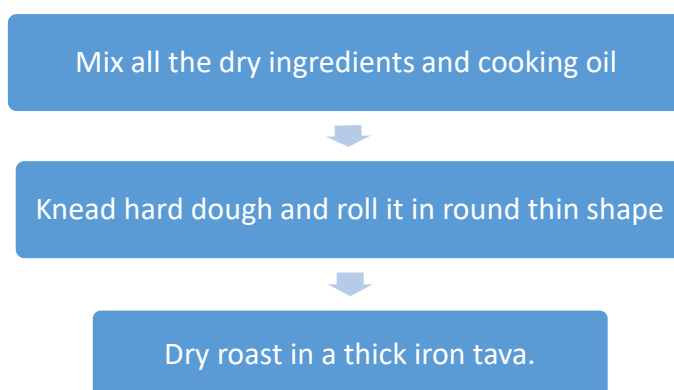
The experiment was conducted in the laboratory of Department of Food Science and Technology, Bhakta Kavi Narsinh Mehta University Junagadh. Shatavari powder was purchased in local market.

Table 1

Ingredients & their Nutrition Value

Ingredients	Amt.(Grm)	Energy	Cho	Protein	Fat	Ca.	Iron	Vita. A	Vita C
Wheat flour	70	236	49	8.5	1.05	0	0	0	0
G.nut oil	20	180	0	0	20	0	0	0	0
Salt	3	0	0	0	0	0	0	0	0
Cumin pwd.	7	0	0	0	0	0	0	0	0
Total	100	416	49	8.5	21.05	0	0	0	0

COOKING PROCESS



ANALYSIS

Table 2

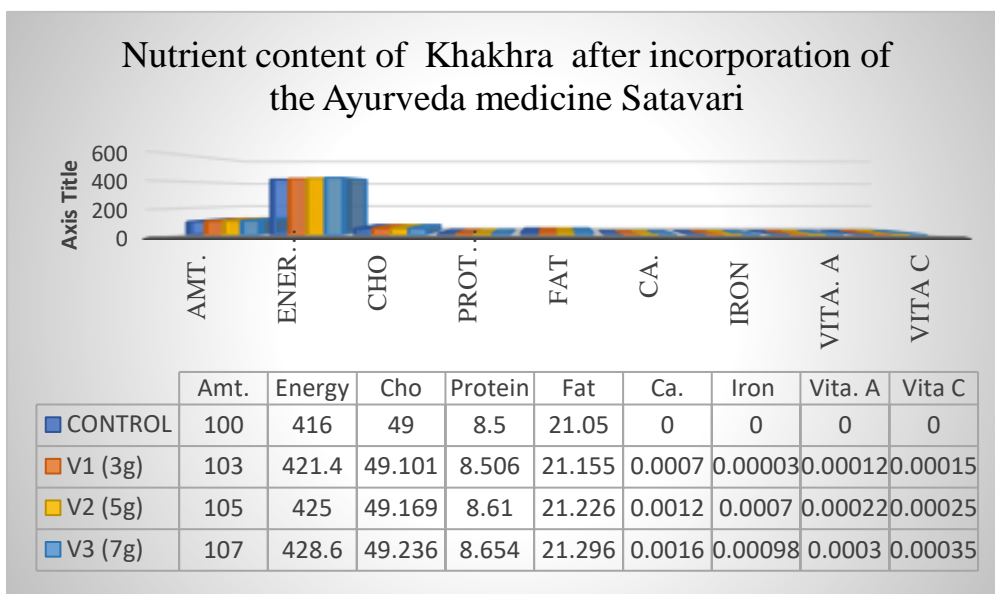
Nutrient content of standard recipe after cooking

Recipe	Amt.	Energy	Cho	Protein	Fat	Ca.	Iron	Vita. A	Vita C
Khakhara	100	416	49	8.5	21.05	0	0	0	0

Table 3

Nutrient content of recipe after incorporation of the Ayurveda medicine Satavari

Recipe	Amt.	Energy	Cho	Protein	Fat	Ca.	Iron	Vita. A	Vita C
CONTROL	100	416	49	8.5	21.05	0	0	0	0
V ₁ (3g)	103	421.4	49.101	8.506	21.155	0.0007	0.00003	0.00012	0.00015
V ₂ (5g)	105	425	49.169	8.61	21.226	0.0012	0.0007	0.00022	0.00025
V ₃ (7g)	107	428.6	49.236	8.654	21.296	0.0016	0.00098	0.0003	0.00035



DATA ANALYSIS : Analysis of the above chart and table shows that the consumption of Shatavari in Khakhra Since its nutrition has changed. The details of which are as follows.

In this research work, in the common method of khakhara, after using all the necessary ingredients, 416 kg of calories are obtained from 100 grams of khakhara, while 5.4 kg of calories are increased by using 3 grams of asparagus, which is more than the calories obtained from normal khakhara. is Similarly, by using 5 grams of Shatavari in the preparation of common khakhara, the amount of energy has increased to 425 and 7 grams of Shatavari powder has increased to 428.6

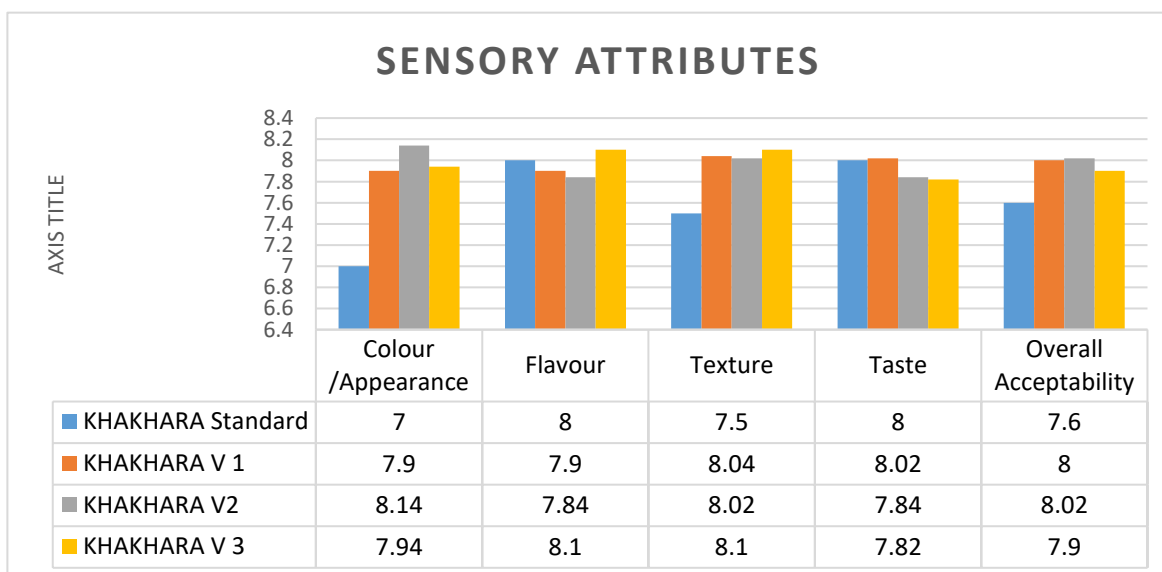
Similarly, there has been a change in the amount of carbohydrate, protein and fat, the detailed information of which is shown in the above table.

Table 4

Sensory Attributes

Name of the recipe	Variation	Sensory Attributes				
		Colour /Appearance	Flavour	Texture	Taste	Overall Acceptability
KHAKHARA	Standard	7	8	7.5	8	7.6
	V ₁	7.9	7.9	8.04	8.02	8
	V ₂	8.14	7.84	8.02	7.84	8.02
	V ₃	7.94	8.1	8.1	7.82	7.9

* V₁– Variation 1, V₂- Variation 2, V₃ -Variation 3



DATA DESCRIPTION :

The result shows that the proportion of Overall Acceptability in the composition of plain Khakhara is 7.6.

Variation 1 which uses 3 grams of Shatavari has an overall acceptability score of 8 and variation 2 has a score of 8.02 , variation v3 has a score of 7.9.

According to the results, if more asparagus is used in the preparation of khakhara, its Overall Acceptability decreases and if asparagus is not used, its Overall Acceptability content decreases.

RESULT:

From the result it can be clearly seen that variation 2 in which 5 grams of Asparagus is used has better overall rate. use of Shatavari in the preparation of normal Khakhra increases the nutrients in the food, besides, nutrients like calcium, iron, vitamin A, vitamin C are not available from normal Khakhara , but when Shatavari is used in it, it contains calcium, iron, vitamin Nutrients like vitamin C are added.

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