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## **OATS KHANDVI**

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### **ABSTRACT**

Consumption of oats has long been known to lower plasma total and low-density lipoprotein (LDL) cholesterol levels in cardiovascular patients. Oats are of high-nutritional value, providing a rich source of fibre, vitamins and minerals. Oats contain more soluble fibre than any other grain, resulting in slower digestion and an extended sensation of fullness. The present study aims to modify the traditional gujrathi dish khandvi into Oats Khandvi. In the product prepared oats were added in khandvi. By incorporating oats in khandvi it makes the product a complete protein food. A sensory evaluation was carried out for this product to see the acceptability of this product and based on the score card results the product was standardized and modification were made to make it more palatable

**Key words:** Oats, khandvi, cardiovascular, fibre.

### **INTRODUCTION**

Khandvi is traditional gujrathi recipe made up of besan and curd. The present study aims to modify the traditional gujrathi dish khandvi into Oats Khandvi. Oats are of high-nutritional value, providing a rich source of fibre, vitamins and minerals. Oats contain more soluble fibre beta-glucan than any other grain, resulting in slower digestion and an extended sensation of fullness. It is good for patients who are suffering from cardiovascular problem. It lowers the plasma total and low-density lipoprotein (LDL) cholesterol levels. (Katie M Queenan *et al.*, 2007). It enhances the human immune system's response to bacterial infection. Beta-glucan not only helps neutrophils (the most abundant type of non-specific immune cell) navigate to the site of an infection more quickly; it also enhances their ability to eliminate the bacteria they find there. (Report of WHO 2012)

### **METHODOLOGY**

#### **STANDARDIZATION OF RECIPE**

In the first attempt oats khandvi did not taste good due to addition of oats in it. Hence in next attempt by changing the amounts of the Oats, it came out as a good and tasty product. And it was made as the standardized recipe.

<b>Ingredients</b>	<b>Amount</b>
Oats (g)	25
Besan (g)	50
Curd (ml)	150
Lemon juice	2-3 drops
Green chilli paste	1/2 tsp
Turmeric powder	1/4 tsp
Mustard seeds	1/4 tsp
Oil (g)	5
Asafoetida	1 pinch
Salt	to taste

### **METHOD**

- Combine the oats, besan, curds-water mixture, lemon juice, ginger-green chilli paste, turmeric powder, asafoetida and salt in a deep non-stick pan and mix well to make a smooth batter.
- Cook on a slow flame, while stirring continuously till it becomes thick
- Grease a thali on the reverse side using ¼ tsp of oil and spread the batter on a greased thali .
- When cool, cut the khandvi into pieces.
- For the tempering, just before serving heat the remaining 3 tsp oil in a small non-stick pan and add the mustard seeds.

- When the seeds crackle, add the asafoetida, curry leaves and green chillies and sauté on a medium flame for a few seconds.
- Pour the tempering over the khandvis.

### NUTRITIVE VALUE

The nutrients such as energy, carbohydrate, protein, fat and fibre content were analyzed. All the analysis were done triplicate for accurate result.

### SENSORY EVALUATION

To find the acceptability of the product, sensory evaluation was conducted with the help of naive panel comprising of 18 students, periodically for 3 weeks. The product was evaluated using a composite scoring method

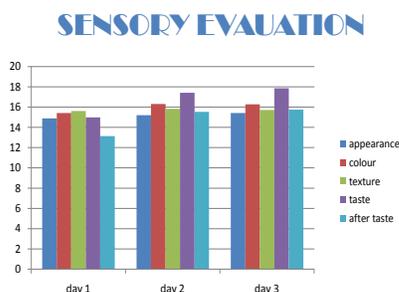
**Table-1- Nutrient analysis of oats khandvi**

Ingredients	Amount (g)	Energy (kcal)	Carbohydrate (g)	Protein (g)	Fat (g)	Fibre (g)
Oats	25	97	15.71	3.7	2.14	5
Besan	50	180	30.45	8.55	2.65	7.65
Curd	150	90	4.5	4.65	6	-
Oil	5	45	-	-	5	-
Total		412	50.66	16.9	15.79	12.65

### SENSORY EVALUATION OF OATS KHANDVI

The sensory evaluation of oats khandvi was shown in the figure.

**Figure-1-Sensory evaluation of the oats khandvi**



From the figure 1 it is observed that the appearance on day 2 and 3 is better than day 1. Also, the colour, texture and taste are accepted on day 2 and 3 than on day 1.

### DISCUSSION

Oat bran contains soluble fibers, such as  $\beta$ -glucan, that increase bile acid excretion and thus decrease serum cholesterol. Bile acid synthesis correlates with serum concentrations of the metabolite  $7\alpha$ -hydroxy-4-cholesten-3-

with the following characteristics- Appearance, Colour, Texture, Taste and Aftertaste. Taste the product and evaluate it according to its characteristics and mark them according to the scale given above. It is carried out for 3 consecutive weeks.

### RESULT

#### NUTRITIVE VALUE OATS KHANDVI

The nutrient analysis of the developed recipe was shown in table-1. The oats khandvi contains 412kcal of energy, 50.66g of carbohydrate, 16.9g of protein, 15.79g of fat and 12.65g of fibre respectively.

one ( $\alpha$ -HC). (maria anderson et.al, November 2002). The oat compared with the wheat cereal produced lower concentrations of small, dense LDL cholesterol and LDL particle number without producing adverse changes in blood triacylglycerol or HDL-cholesterol concentrations. These beneficial alterations may contribute to the cardioprotective effect of oat fiber (Brenda M Davy et.al august 2002)

### CONCLUSION

In recent scenario the lifestyle patterns are the major cause of increasing risk factors like obesity, diabetes mellitus, cardio-vascular diseases, arthritis etc. Considering the general eating patterns of the population oats khandvi was made. Addition of oats will help the patients to reduce the complication of cardiovascular problem.

### REFERENCES

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