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**RESEARCH ARTICLE**

# VALUE ADDED OATS SNACKS IN YOUTH

***Gupta Pooja and Singh Neetu**

Department of Food Science and Technology, School for Home Science, Babasaheb Bhimrao Ambedker University, Lucknow

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**ABSTRACT**

Today, the focus has increasingly shifted toward higher quality requirements due to changes in eating habits and growing health- consciousnes. This paper is a product of a thesis on developing oat-based functional products in correlation with our youth generation. Oat proved to be a valuable ingredient that could improve considerably the nutritious value of cereal products like bread, pasta, noodles or cakes and, more specifically, gluten-free products. Recent studies also showed extrusion to be an advantageous method to produce oat-based products. New health benefits of oats with health claim potential were identified, like antioxidant capacity, reduction of atherogenesis, and hypoglycaemic and inhibitory effects on intestinal dissaccharidases. Oats are a popular food to their high vitamin, mineral, and amino acid contents as well as their pleasant taste. For a long time, they were particularly appreciated because they are easy to prepare. Oats and value added product prepare snacks for youth. Its nutritious and delisious product includind of value added product also i.e. raagi flour, dates banana, egg, honey and pulses to inhance their nutritive value.



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## INTRODUCTION

Oats, known scientifically as Avena sativa, are a hardy cereal grain able to withstand poor soil conditions in which other crops are unable to thrive. Oats gain part of their distinctive flavor from the roasting process that they undergo after being harvested and cleaned. Although oats are then hulled, this process does not strip away their bran and germ allowing them to retain a concentrated source of their fiber and nutrients. Oats have numerous uses in foods; most commonly, they are rolled or crushed into oatmeal, or ground into fine oat flour. Oatmeal is chiefly eaten as porridge, but may also be used in a variety of baked goods, such as oatcakes, oatmeal cookies and oat bread. Oats are also an ingredient in many cold cereals, in particular muesli and granola. Oats are also occasionally used in several different drinks. In Britain, they are sometimes used for brewing beer. Oatmeal stout is one variety brewed using a percentage of oats for the wort. The more rarely used oat malt is produced by the Thomas Fawcett & Sons Maltings and was used in the Maclay Oat Malt Stout before Maclays Brewery ceased independent brewing operations. A cold, sweet drink called avena made of ground oats and milk is a popular refreshment throughout Latin America. Oatmeal caudle, made of ale and oatmeal with spices, was a traditional British drink and a favourite of Oliver Cromwell. World oat production this year is projected to be 25.3 million tonnes, the largest crop in five years but slightly less than world consumption projected at 25.7 million tones. Oats are generally considered healthy due to their rich content of several essential nutrients . In a 100 gram serving, oats provide 389 calories and are an excellent source (20% or more of the Daily Value, DV) of protein (34% DV), dietary fiber (44% DV), several B vitamins and numerous dietary minerals, especially manganese (233% DV) (table). Oats are 66% carbohydrates, including 11% dietary fiber and 4% beta-glucans, 7% fat and 17% protein. Oat bran is the outer casing of the oat. Its daily consumption over weeks lowers LDL ("bad") and total cholesterol, possibly reducing the risk of heart disease. Oats contain more soluble fiber than any other grain, resulting in slower digestion, a feeling of satiety and suppression of appetite. One type of soluble fiber, beta-glucans, has been proven to lower cholesterol.

### Rational of study

As today era is fast food prevailed in youth elietary practices. Oats play a vital component in managing stomach related problem indude by taking mal practices of fast food. Oats have so much fiber, beta- glutan, mangenise and soon and absorved water for longer time in intestine. The present study will be a

****Corresponding author: Gupta Pooja,***
Department of Food Science and Technology, School for Home Science, Babasaheb Bhimrao Ambedker University, Lucknow

effort to prepare oats snacks in such a form youth accepted and include in day today life.

**Methodology**

**Preparation of experiment**

This phase mainly deals with the preparation of three different types of snacks products for experiment by using Oats and value added product.

**1. Oats Ragi ladoo**

**Tools-** Pan, grinder, gas cylinder, stove and bowl.

**Techniques-** Take 1 tbsp of ghee in pan and roast the oats flour on low flame for few minutes. Now take another pan and heat the remaining ghee and roast ragi flour until the rawness is removed on low flame. Now mix the oats flour in the ragi flour and mixwell keeping on low flame. Now add the dates paste into it and mi well. Then add half of honey and mix. Now add cardamom powder and mix well. Keep on low flame for few minutes and off the stove. Take the mixture out of stove and let it cool for some time. Now add the pieces of dates. Now add the remaining honey and mix well into dough. Now take some dough into hand and put a cashew and make it in the form of ladoo. Mix the sesame seeds in to coconut powder. Now roll the ladoo in this mixture and coat it.

**2. Oats banana muffins**

**Tools**- Oven, large bowl, blinder, muffin tin, butter paper and paper bake cups.

**Techniques-**Combine flour, oats, sugar, baking powder, soda, and salt. In a large bowl, beat the egg lightly. Stir in the milk, oil, and vanilla. Add the mashed banana and combine thoroughly. Stir the flour mixture into the banana mixture until just combined. Line a 12-cup muffin tin with paper bake cups, and divide the batter among them. Bake at 400 degrees F (205 degrees C) for 18 to 20 minutes.

**3. Oats Kabab**

**Tools- :** Pressure cooker, grinder, pan, spechula, bowl, knife.

**Techniques-** Boiled urad and chana daal in pressure cooker. And then grind this after cooling in grinder. Then another pan roast the rolled oats for few minutes. Chopped the onion and green chili in small pieces. Take the bater and put the rolled Oats, chopped onion, green chilli, black pepper powder. Salt, zeera powder, garam masala and dreid mango powder and mix well. After that take the bater in few amount and give the rolled shape. Then take another pan and sallow fry the tikki in vegetable oil till brown color.

**Method for evaluation by youth-**The prepared products were coded T1, T2, T3 according to own desirability and they were further evaluated by faculty members according to certain parameters mentioned in the 9- point hedonic scale i:e, flavour, texture, appearance, overall acceptability and then markings were given according to them. At the end of this phase marking of individual products were calculated and the best acceptable product was further put forth for the study.

## RESULTS AND DISCUSSION

In the present study mainly three types of products were developed aiming that the prepared product can serve to be a good alternative of oats value added product.. The products developed were-

$T_1$ = Oats ragi ladoo
$T_2$=. Oats banana muffins
$T_3$= Oats kabab

The overall acceptability graph represents the acceptance on the basis of all the mentioned parameters, the maximum average scored is 40 by the product T1 i.e.- Oats ragi ladoo.

**Overall acceptability**

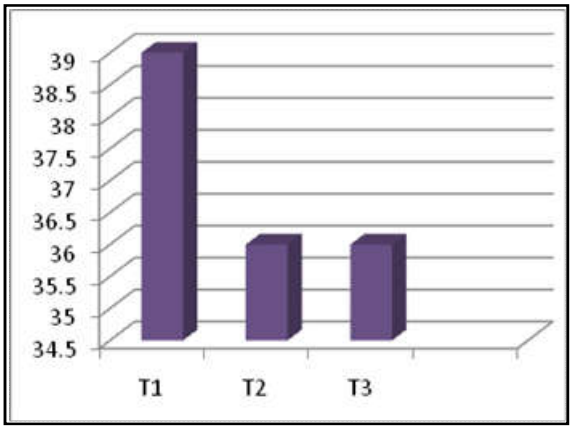


**Fig. 1. Graphical representation of scores for overall acceptability**

The overall acceptability graph represents the acceptance on the basis of all the mentioned parameters, the maximum average scored is 40 by the product T1 i.e.- Oats ragi ladoo.

**Product tested by youth member**

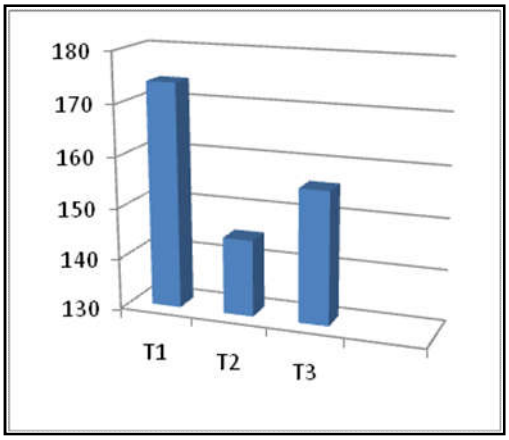


**Fig.2. Graphical representation of score card by youth acceptability**

The youth acceptability graph represents the acceptance on the basis of all the mentioned parameters, the maximum average scored is 174 by the product T1 i.e.- Oats ragi ladoo.

**Nutrient contents in control and experimental product-** The above table shows the higher value of energy fat, protein, carbohydrate, energy, total mineral and Dietary fiber.

**Table 1. Nutrient contents in control and experimental product**

| Parameters | Ontrol | Experimental |
|---|---|---|
| Fat (gm) | 10.05 | 12.99 |
| Protein (gm) | 8 | 5.68 |
| Carbohydrates(gm) | 75 | 66.39 |
| Energy(kcl) | 430 | 405 |
| Total mineral | 0.9 | 1.59 |
| Dietary fiber | 5 | 0.97 |

**Source-** r-frace, Regional Food Research &Analysis Centre.

## Summary and conclusion

- Two snacks were prepared using oats and value added product.
- One product prepared using oats, ragi, dates and some flovoring ingredients i.e. oats ragi ladoo.
- Second sample prepared using oats flour and banana i.e. oats banana muffins.
- Third sample prepared by using oats flour, chana daal and gream gram daal i.e. oats kabab.
- The overall acceptability of T2 and T3 had showed same with scoring of and 36 respectively with T1 being the highest of all with the total score of 39.

## Suggestion and Recommendation

- The Value added oats snacks should be used on any festival or occasion.
- The snacks are very healthy for health.

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