



Development, Sensory Evaluation and Proximate Analysis of Kishmish Muffins

Rutuja B. Pawar and Supriya M. Patil*

Department of Food Processing and Packaging, Yashwantrao Chavan Institute of Science, Satara, Maharashtra India, 415 001

**Corresponding author Email: supriyapatil1302@gmail.com*

ABSTRACT

An assortment of simple and complex carbohydrates, protein, fat, fiber, vitamins, and minerals can be found in muffins, a convenient snack food. Compared to other common dried fruits, Kishmish has the highest polyphenolic content and antioxidant level. Consuming raisins lowers blood pressure, Low-density lipoprotein (LDL) cholesterol and blood sugar, which lowers the chance of developing cardiovascular disease. People's health and nutrition are enhanced by eating kishmish. The goal of this study was to produce a nutritious food kishmish muffin and determine consumer acceptance of it. Three phases were used to complete the work. The first stage of the study is gathering all the raw materials and making nutritionally muffins. In the second phase of the study, muffin acceptability is assessed using a 9-point hedonic scale. Proximate analysis of the product, including moisture, ash, fiber, fat, protein, and carbohydrates, were examined in the third phase. The results of the sensory evaluation report shows that Sample C scored better than the other muffin. The Sample C with the highest level of acceptance is chosen for further formulation and proximate analysis. Kishmish muffins chemical composition was examined, and it was discovered that they contain 316.50 kcal/100g, 52.64 g of carbohydrates, 4.48 g of protein, and 9.78 g of fat.

Key words: Kishmish, Muffins, Sensory Evaluation, Proximate analysis.

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INTRODUCTION

Kishmish (Raisins) contain the most polyphenols and have the highest antioxidant ORAC values to other conventional dried fruits. Many of the polyphenols in raisins are accessible and well-absorbed. Comparing raisins to similar calorie carbohydrate snacks, Low-density lipoprotein (LDL) cholesterol, blood pressure, and blood sugar levels are decreased and there is a lower risk of CVD. It is unclear whether raisins have chemopreventive or anti-inflammatory properties. Consuming raisins accelerates intestinal transit and alters the gut's flora for the better [4, 2].

Raisins are a main ingredient in kishmish muffins, a sort of cake. There are many different sizes, shapes, and flavours of muffins. The baked bread known as muffins is sweeter than cupcakes without icing. The procedure for making kishmish muffins involves a mixture of ingredients and baking it in the oven. They have a delightful texture that is soft and spongy. Due to its unique characteristics and the fact that consumers eating habits are changing and they are in need of convenient foods like muffins, cake, biscuits, etc., baked goods like muffins and cake have become the most popular across all age groups from childhood to adults globally [6, 5].

Typically, Kishmish muffins is made with regular cake ingredients. In which kishmish reduce blood pressure, sugar to lower risk of developing heart disease and helps to lower LDL (bad) cholesterol. Milk is a water-based liquid made up of dissolved carbohydrates, protein aggregates, and minerals that contains butterfat globules suspended within it. In this approach, the gluten that makes muffins soft. The most crucial job that eggs perform is to provide the cake structure and moisture. It enhances the cake's flavour and nutritional benefits. The muffins layer will be unusually thick and peel off as flakes if there are too many eggs used. Egg whites are known for their ability to produce foam well [2, 5].

The goal of this study was to produce a nutritious food kishmish muffin, Proximate analysis and determine consumer acceptance of it.

MATERIAL AND METHODS

Procurement of raw material

Kishmish, butter, sugar, milk, all-purpose flour, baking soda, baking powder, Egg, Cocco powder and Vanilla essence were purchased from local market. Eggs, Butter and milk were stored in the refrigerator until use.

Raw material Processing

To eliminate suspended contaminants, dry all-purpose flour was sieved with baking soda and baking powder.

Preparation of Kishmish muffins

The method used to make the muffins was sugar batter. This technique involves creaming all the fats together, adding sugar during the creaming process, and then adding flour along with Kishmish, baking powder, baking soda, coco powder and vanilla essence[1, 6].

Flow Chart for preparation of Kishmish Muffins

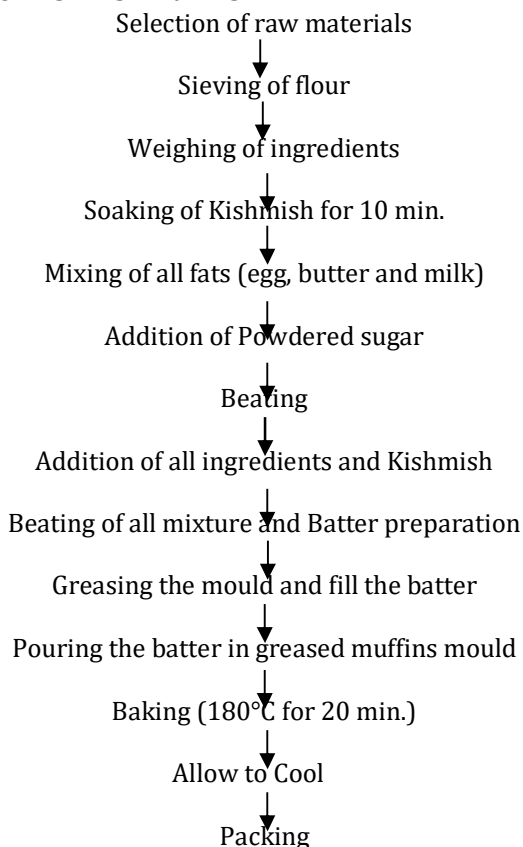


Table1.Composition to prepare of Kishmish muffins

Sr.No.	Components	Formulation		
		Sample A	Sample B	Sample C
1	All-purpose flour	100 g	100 g	100 g
2	Black Kishmish	75 g	75 g	-
3	Green Kishmish	-	-	75 g
4	Sugar	50 g	50 g	50 g
5	Butter	50 g	50 g	50 g
6	Egg	70 g	35 g	35 g
7	Baking powder	0.30 g	0.30 g	0.30 g
8	Baking soda	0.29 g	0.29 g	0.29 g
9	Cocca Powder	0.35 g	0.35 g	0.35 g
10	Vanilla essence	0.25 g	0.25 g	0.25 g
11	Milk	150 ml	150 ml	150 ml

Sensory evaluation of Kishmish muffins

Sensory evaluation of Kishmish muffins was evaluated by 10 semi-trained judges for different characters based on a 9 point hedonic scale used for colour, aroma, texture, mouthfeel and overall acceptability.

Table 2.9 point hedonic rating scale

Extremely Like	Liked very much	Like moderately	Liked slightly	Neither liked or disliked	Like slightly	Dislike moderately	Dislike very much	Dislike extremely
9	8	7	6	5	4	3	2	1

Proximate Analysis

Proximate analysis was performed for total energy, carbohydrate, protein, fat, moisture and ash by AOAC method, 2000[7].

RESULT AND DISCUSSION



Fig 1-Kishmish Muffins from formulation Samples C

Sensory Evaluation

Table 3 displays the average sensory ratings for the A, B, and C samples for colour, texture, flavour, taste, appearance and overall acceptability. Sample C which contains Green Kishmish, received the highest rating.

Table3. Results of sensory evaluation

Attributes	Colour	Texture	Flavour	Taste	Appearance	Overall Acceptability
Sample A	7	8	6	6	7	6.8
Sample B	8	8	8	7	7	7.6
Sample C	8	9	8	9	8	8.4

Proximate analysis

According to the chemical analysis, the kishmish muffins were a good source of energy carbohydrates and protein. The findings of the chemical analysis of Sample C of kishmish muffins are shown in the table 4.

Table4. Proximate analysis of Muffins Sample C

Sr. No	Test Done	Result
1	Moisture	31.1 %
2	Ash	1.97 %
3	Total fat	9.78 %
4	Protein	4.48 g
5	Carbohydrates	52.64 g
6	Total Energy	316.50 Kcal

CONCLUSION

The Sample C with the highest level of acceptance. Kishmish muffins contain 9.78 % of fat, 4.48 % of protein, 52.64 % of carbohydrates with total energy 316.50 kcal/100g.

REFERENCES

1. Ashish Nalinde, Ashish Mhaske, Nikhil Bhagwat, Swapnil Borale (2018) Formulation of Vitamins A Rich Carrot Muffin. International Journal of Science and Research, **7(10)** 1369-1371
2. Schuster, Margaret J., Wang Xinyue, Painter, James.E. (2017) A Comprehensive review of raisins and raisin components and their relationship to human health. Journal of Nutrition and Health **50(3)** 203-216
3. Ramya H.N. and Anitha Shivanna (2020) Development of muffins from wheat flour and coconut flour using Honey as a sweetener. International Journal of Current Microbiology and Applied Science **9(7)** 2231-2240.
4. Zainab Zakkiyah Romjaun and Jamuna Prakash (2013) Development and Assessment of Fiber-Enriched Muffins. Advances in Food Science, **35(4)**- 159-165
5. R. Baixauli, Ana Salvador, Susana Fiszman (2018) Textural and colour changes during storage and sensory shelf life of muffins containing resistant starch. European Food Research and Technology, 523-530.
6. Jadhao A.S., Nagargoje N.C., Jumde A.D., Sonawane Y.S., Kale R.S., Padvi R.P. (2019) Development and Quality Evaluation of Multigrain Muffins. International Journal of Science and Research, **8(11)** 1433-1436
7. AOAC. Official methods of analysis, 17th edition. Association of Official Analytical Chemists, Washington DC 2000.

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