A

Project Report

On

"Semolina Jaggery cup cake"

Submitted to ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI, AHMEDNAGAR

In partial fulfillment of the requirements for the degree of

Bachelor of Vocational

in FOOD PROCESSING (DAIRY TECHNOLOGY)

By

THORAT HIMMATRAO ONKAR &

VIRKAR HRITIK BALASAHEB
Dr. R.R Dandawate
Guide
Ms. Patole M.A

Co-Guide



DEPARTMENT OF B.VOC FOOD PROCESSING

MULA EDUCATION SOCIETY'S

ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI, AHMEDNAGAR

(2021)

CERTIFICATE

Certified that THORAT HIMMATRAO ONKAR

Date: 21/10/2021

AND VIRKAR HRITIK BALASAHEB has carried out the project work entitled "Samolina

Jaggery cup cake" for the award of the degree of Bachelor of Vocational (Food Processing) from

Mula Education Society's Arts, Commerce and Science College, Sonai, Ahmednagar under my

supervision. The project embodies results of original work, and studies are carried out by the student

himself and the contents of the project work do not form the basis for the award of any other degree

to the candidate or to anybody else from this or any other University/Institution.

(My)

Dr. R.R Dandawate

Nodal Officer Department of B.Voc Arts, Commerce and Science College, Sonai

Ahmednagar

ACKNOWLEDGEMENT

First of all, I am indebted to the GOD ALMIGHTY for giving me an

opportunity to excel in my efforts to complete research work. I avail this opportunity to

acknowledge all those who helped and guided me during my research work. I am

deeply inherited who devoted their precious time in giving me information about the

various aspects and gave support and guidance at every point of time.

I wish to place on record my hearty felt gratitude towards Dr. S.L. Laware,

Principal and Dr. R.R. Dandawate, Nodal Officer, Department of B.Voc Arts,

Commerce and Science College, Sonai, Ahmednagar for providing facilities and

making suggestions and corrections wherever required.

This work would not have been competed without the guidance of Dr. R.R.

Dandawate and co-guide Ms. M.A. Patole, Assistant professor, Department of B.Voc

Arts, Commerce and Science College, Sonai, Ahmednagar for their inspiring guidance,

constant encouragement efforts in suggesting, designing and improving the quality of

study throughout the entire research and finalizing the manuscript successfully.

It is my proud privilege to offer sincere and well devoted thanks to Mr. A.S

Jadhav Assistant Professor, Ms. S.J Ghadage Assistant Professor, Department of B.Voc

Arts, Commerce and Science College, Sonai, Ahmednagar for their constant guidance,

valuable suggestions and support which helped me lot during this project.

I am grateful to the authors, past and present whose contributions were of

great help to conduct this experimentation. Last but not least, I am thankful to all those

who have helped me directly or indirectly and whose names I forget to mention in the

endeavor.

Date: 21/10/2021

Place: Sonai

THORAT HIMMATRAO ONKAR

VIRKAR HRITIK BALASAHEB

Thereof Hentile

1.INTRODUCTION

. The earliest extant description of what is now often called a cupcake was in 1796, when a recipe for "a light cake to bake in small cups" was written in <u>American Cookery</u> by <u>Amelia Simmons</u>. [1][2] The earliest extant documentation of the term *cupcake* itself was in "Seventy-five Receipts for Pastry, Cakes, and Sweetmeats" in 1828 in <u>Eliza Leslie</u>'s *Receipts* cookbook. [3][4]

In the early 19th century, there were two different uses for the term *cup cake* or *cupcake*. In previous centuries, before <u>muffin tins</u> were widely available, the cakes were often baked in individual pottery cups, <u>ramekins</u>, or molds and took their name from the cups they were baked in. This is the use of the name that has remained, and the name of "cupcake" is now given to any small, round cake that is about the size of a <u>teacup</u>. While English fairy cakes vary in size more than American cupcake, they are traditionally smaller and are rarely topped with elaborate frosting.

The other kind of "cup cake" referred to a cake whose ingredients were measured by volume, using a standard-sized cup, instead of being weighed. Recipes whose ingredients were measured using a standard-sized cup could also be baked in cups; however, they were more commonly baked in tins as layers or loaves. In later years, when the use of volume measurements was firmly established in home kitchens, these recipes became known as 1234 cakes or quarter cakes, so called because they are made up of four ingredients: one cup of butter, two cups of sugar, three cups of flour, and four eggs. [5][6] They are plain yellow cakes, somewhat less rich and less expensive than pound cake, due to using about half as much butter and eggs compared to pound cake.

3. MATERIALS AND METHODS

•	3.1 Ingredients- Fine Suji - 1/4 cup+ 2 tbsp
•	□ Powdered Palm Sugar/Cane Sugar - 1/4 cup + 2 tbsp
•	□ Curd/Yogurt - 1/4 cup
•	□ Milk - 1/4 cup + 2tbsp
	□ Baking Soda - 1/4 tsp
	□ Baking Powder - 1/4 tsp
•	□ Broken nuts/nuts powder- 1/4 cup
•	□ Vanilla essence - 1/2 tsp
•	□ Olive oil/sunflower oil - 2 tbsp

3.2 Equipment's used

- Weighing balance: Electronic weighing balance is used for weighing raw materials.
- **Electronic blending machine (planetary mixer)**: It is used for mixing and blending of ingredients like fat, sugar, refined wheat flour, essence, etc.
- **Baking oven**: Baking of cookies is done at 150°c for 15 minutes.

3.3 Methodology for preparation of Samolina Jaggery cup cake

- 1. Preheat the oven to 180 degrees for 10 minutes. In a mixing bowl, add suji. Then add powdered palm sugar/cane sugar.
- 2. Now add curd/yogurt followed by milk.
- 3. Then add oil. Stir it well with a hand whisk until the oil is mixed evenly. Set this mixture aside for 20 minutes.
- 4. After 20 minutes, add vanilla essence.
- 5. Now add baking soda and baking powder.
- 6. Mix everything well for 10-15 seconds. The final mixture should be in pouring consistency. Adjust with 1-2 tbsp of milk if the batter is too thick. Add in crushed nuts at this stage. Give a quick stir.
- 7. Line up the muffin tray with muffin liners. Pour the prepared batter into muffin liners and top it with broken walnuts. Bake in the preheated oven for 20-25 minutes (baking time depends on the size of the muffin tray and oven) at 180° Celsius till s toothpick inserted in the center comes out clean. Allow cooling in the plate for 5 minutes once done.
- 8. The tasty suji muffins are ready to serve!

3.4 Chemical Analysis

- **1. Moisture Content-** Moisture content of the eggplant flesh powder was determined using the hot air oven method (AOAC, 2000).
- **2. Protein Content-** Crude protein was estimated using the micro Kjeldahl method (Pelican Equipments)
- **3.** Fat Content- Fat content was estimated using soxhoplus (Pelican equipment's).
- **4. Crude Fiber Content-** Crude fibre was estimated using fibroplus (Pelican Equipments)
- **5. Ash Content-** The ash fraction contains all the mineral elements but it allows to nitrogen-free-extract (by difference) from dry matter
- **6. Carbohydrate Content-** Carbohydrates are calculated on the basis of determination of the remaining four parameters.
- **7. Iron Content-** Iron was introduced during the mixing of the cookie batter. Spectrophotometric measurement of the Iron Content of cookies was introduced in accordance with the AOAC protocol.

4. RESULT AND DISCUSSION.

4.1 Analysis

4.1.1 Proximate analysis of raw material for Samolina Jaggery cup cake

Chemical properties were analysed to check the quality of raw materials. The nutritional composition of Oats and Aserio seeds are mentioned below in **table no. 4.2**

As Rolled Oats and Aserio seeds are added for fortification in the product, it is analysed using various instruments to get idea about nutritional contents such as Moisture content, protein content, fat content, fibre content, potassium, magnesium The major nutrient found in Oats is Fiber and Protein. The major nutrient found in aserio seeds is **Iron** which is **4 mg**, **Calcium** which is **81 mg** and **vitamin C** is **69 mg**.

Table 4.1: Proximate analysis of raw materials

Sr. No.	Parameters Sample	Moisture (%)	Ash (%)	Fat (%)	Fiber (%)	Protein (%)	Carbohydrate (%)
1	Rolled Oats	5.5	5.4	2	17	9.5	60.6
2	Aserio Seeds	6.7	2.5	5	36	20	29.8

5. CONCLUSION

1)	The organoleptic	Table No. 4.2 -Chemical Analysis	\Box C ₁	and C2,	C ₄ samples.

2) Oats and Aserio seeus were anaryseu and were round to increase the fibre, Iron and Protein content of the formulated product.

5.1 Future Scope

Refined Wheat flour affects the health and so it can be replaced by wheat flour or enriched wheat flour to increase the nutritive value of the product.

REFERENCE:

- I. Neelam Khetarpaul, Raj Bala Grewal & Sudesh Jood (2005). Bakery Science and Cereal Technology.
- II. N.L.Kent and A.D.Evers (1983). Technology of Cereals
- III. Vural Gokmen, Arda Serpen, Francisco J. Morales (2007). Effect of leavening agents and sugars on the formation of hydroxymethylfurfural in cooking during baking. European food research and technology pp 1031-1037.
- IV. Dhinalkumar H. Patel and Bikash C. Ghosh (2015) Oats –Beneficial attributes and application in foods.
- V. Farah N.A., Shahid M., Ghulam M., Muhammad Y., Muhammad N., Huma B.A., & Tabussam T. (2020). Fortification of Cookies with Sweet Basil Leaves Powder: An unheeded hematinic. International Journal of Biosciences. Vol-16, No-4, pp 366-382.
- VI. Chelladurai C., Pandey A.A., Panmand S.A., & Nikam S. (2019). Development of Innovative Bakery Product Chia seed enriched Cookies.
- VII. Manley D. (2011). Manley's Technology of Biscuits, Crackers and Cookies, Elsevier.
- VIII. Zoulias E.I., Oreopoulou V., & Kounalaki E. (2002). Effect of fat and sugar replacement on cookie properties. Journal of Food and Agriculture, pp 1637-1646