

Preparation of protein rich Cantaloupe candy using Goat milk

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Abstract: - Candy, also called sweets or lollies that can be prepared using vegetables and fruits, has a long history as a familiar food treat that is available in varieties. It is influenced by size of crystals, aeration, sugar concentration, color and flavors. People usually prefer food items that fulfill their taste buds rather than healthy ones. So in order to make them healthy and free from diseases, a candy made from Cantaloupe (*Cucumis melo* var. *cantalupensis*) is incorporated. Cantaloupe is bursting with nutrients. It is loaded with Vitamin A as well as Vitamin C and is good source of mineral potassium. Goat milk is also combined with it, which is good source of calcium, different proteins and fats, and contains other essential minerals. Therefore, it is hoped that this product would gratify consumers with its abundant health benefits along with flavors and allureances.

Key Words: — Candy, Cantaloupe, Goat milk, Mix.

I. INTRODUCTION

Candy is a confection made from concentrated solution of sugar in water to which various flavorings and colorants are added to promote sumptuousness. Various types of candies include caramels, gummies, hard candies, lollipops etc. Due to excessive sugar and synthetic additives in candies they are considered to be unhealthy. It increases the risk of asthma and causes certain allergies. Therefore, indulgence in nutritious candies can control the risks as well as give them delight. Processing musk melon candy is one way to provide added value. It is used as a fortification source of nutrient. Cantaloupe is reported to give anti-inflammatory properties and presence of phytonutrients. Cow milk is replaced with goat milk to ensure improved health benefits like growth, development, and repairs the body. White sugar is replaced with rock sugar which is used to drop blood sugar levels and also boost hemoglobin levels. Unsweetened dried coconut is used here which helps in proper digestion. Goat milk is condensed naturally without adding sugar. Vanilla extract is used for flavoring. The main purpose of study is to prepare natural candy from cantaloupe. So we justify that our product is useful for health beneficial.



Table.1. Nutritional content of Cantaloupe

Nutrients	Content(Per 100g)
Protein	0.8g
Vitamin A	67%
Vitamin C	61%
Cholesterol	0mg
Sodium	16mg
Potassium	267mg
Total carbohydrate	8g
Iron	1%
Vitamin B-6	5%
Magnesium	3%

Table.2. Nutritional content of goat milk

Nutrients	Content
Sodium	50g
Potassium	204mg
Total carbohydrate	4,5g
Vitamin A	3%
Calcium	13%
Vitamin D	12%
Cobalamin	1%
Total fat	4.1g
Magnesium	3%
Vitamin C	2%

A. Nutritional Benefits

Cantaloupe:

- 100% of daily value for VitC, a powerful antioxidant that protects the cells from damage.
- All the daily needs for VitA, which helps to keep eyes, skin, bones, and immune system healthy.
- About 12% of recommended daily potassium, important for heart, muscles, and blood pressure.
- It is full of Vitamins and minerals like folic acid, copper, iron, VitK, Niacin, Choline, Selenium, Manganese.

Goat milk:

- It contains less Alpha-S1-Casein which helps in development and repair of body.
- Typically contains slightly less lactose.
- Contains plenty of Calcium and provide 100% of an adult's daily need of calcium.
- Good source of key vitamins.
- It is naturally slighter lower in dietary cholesterol.

II. MATERIALS AND METHODOLOGY

A. Preparation of condensed milk

Goat milk is used to prepare condensed milk. Water content is removed by constant boiling and stirring.



B. Preparation of grated Cantaloupe

The seed is removed from the fruit. And then the skin is also removed. It is then grated and made to small thin pieces.



Fig.1. Unsweetened dried coconut



Fig.2. Goat milk



Fig.3. Rock sugar



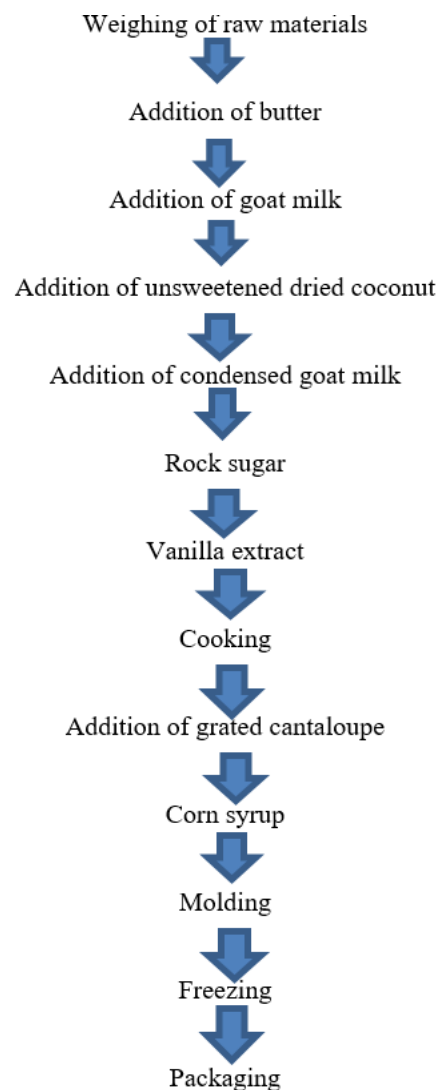
Fig.4. Vanilla extract



Fig.5. Corn syrup



Fig.6. Butter



Candy was prepared using grated cantaloupe, unsweetened dried coconut, condensed goat milk, rock sugar, vanilla extract, corn syrup, butter. A medium sized cantaloupe is made to small thin slices by grating. 2table spoon of butter is added to a low flamed vessel. 250ml of goat milk is added.50g

of condensed milk, 100g of rock sugar, and 6table spoon of unsweetened dried coconut. Vanilla extract is also added to enhance the flavor. It is then stirred continuously in low flame about 15min. 2cup of grated cantaloupe is then added. 5grams of corn syrup complemented to slimy nature of solution. It was boiled until desired concentration was acquired. After completion of caramelization it was cooled and poured to moulds. After, prepared candy was cooled at room temp and packed in polythene pouches.



Fig.7. Candy on processing



Fig.8. Moulds



Fig.9. Prepared candy

III. CONCLUSION

Thus, the cantaloupe candy provides a lot of protein content to human health. All the ingredients were enriching.

Homemade corn syrup, rock sugar, unsweetened dried coconut which is used to develop candy bought suitable taste, flavor, and smell. The sample was also subjected to shelf life testing for about 3 weeks. It can be concluded that this candy is an adequate mode for intake of protein supplement especially for children.

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