

Eco-friendly Candy Preparation from Paneer Whey

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ABSTRACT

In present study the preparation of candy from paneer whey. The paneer whey obtained from coagulated cow and buffalo milk. In coagulant milk the liquid part is a whey and solid part is a paneer. In paneer whey the 50% solid is prevent their for paneer whey is used in candy preparation.

Keywords: Buffalo Milk, Coagulant Milk, CMC, Fat

I. INTRODUCTION

In 80's and 90's the milk production increases due to dairy institute and farmers. Milk production of country crossed the limit of 130 million tons per annum. Out of 100 % milk the 46 % milk is raw liquid milk consumption and remaining milk is processed under organised and unorganised sector i.e. 54%. Out of 54%, 50% milk is processed and converted into traditional dairy products and remaining 4 % converted into western type of products. Out of traditional dairy products, major quantity of milk is converted into acid coagulated products. Acid coagulated products produces large quantity of Whey products. This Whey is either converted in Whey Powder or disposed as it is. This causes loss of about 50 % of milk solid which is to be prevented.

II. METHODS AND MATERIAL

Material: Milk, Ingredients like sugar, stabilizer, butterscotch, nuts and dry fruits.

Methods:

Collect the fresh whole milk then pre heating of this milk at 35–40°C after pre-heating filter the milk then

standardization takes place. After standardization condense the 2:1 concentration then addition of whey in condensed milk and sugar simultaneously as per treatment then stir the mixture and add the stabilizer at the rate 0.5% (CMC) then addition of Nuts and dry fruits. After total addition of ingredients freezing below 0°C for 4 to 6 Hrs. After cooling Kulfi is ready to serve.

Preliminary trials:

Pre-experimental trials have been conducted to decide the levels of addition of whey and sugar in the candy. The samples of paneer whey based candy have been subjected to sensory evaluation. On the basis of results of sensory evaluation, treatments are finalized for experimental trials. Preliminary trails have been conducted in phased manner as follows;

Phase 1: Whey: Milk proportion

W₁ = 25:75:: Whey: Milk

W₂ = 30:70:: Whey: Milk

W₃ = 35:65:: Whey: Milk

W₄ = 40:60:: Whey: Milk

W₅ = 50:50:: Whey: Milk with 12% constant level of sugar.

Pre-experimental trials were conducted to select the levels of whey: milk, sugar and stabilizer. Cow milk was used in this study contained on an average 3.77, 3.65, 4.39, 0.69 and 12.52 per cent fat, protein, lactose, ash and total solids, respectively. The S.N.F content in cow milk was 8.75 per cent. The milk: whey levels were selected by the judges on basis of organoleptic properties. The milk: whey levels were selected as

75:25, 70:30, 65:35, 60:40 and 50:50 for experimental trials. The sugar level selected for final experimental trials was 12% over and above candy mix. The prime motto to examine sugar level was to nullify the sour taste which is developed by increased content of whey in candy. For final experimental trials, CMC with 0.15% concentration was selected.

Table 1. Final Treatment Table

Sr. No.	Treatment	Ratio	Concentration of sugar
1	T1 (W1 : M1)	(25 : 75)	12%
2	T2 (W2 : M2)	(30 : 70)	12%
3	T3 (W3 : M3)	(35 : 65)	12%
4	T4 (W4 : M4)	(40 : 60)	12%
5	T5 (W5 : M5)	(50 : 50)	12%

Where, T = Treatment, W= Whey, M = Milk.

Whey content: Lactose, Vitamins, Proteins, minerals, and traces of Fat.

Result:

Table 2. Result Shows in Average Value:

Treatment	Colors & Appearance	Flavours	Body & Texture	Overall Acceptability
T1(25:75)	6.2	6.5	9.0	7.1
T2(30:70)	6.4	6.8	8.4	7.2
T3(35:65)	6.5	7.0	8.0	7.4
T4(40:60)	6.7	7.0	8.0	7.8
T5(50:50)	6.8	7.5	7.9	8.0

III. CONCLUSION

It may be concluded that treatment T5 having 50 percent milk and 50 percent whey is most acceptable among whey candy in respect of chemical, organoleptic and microbiological qualities.

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