International Journal of Research in Engineering and Science (IJRES)
ISSN (Online): 2320-9364, ISSN (Print): 2320-9356
www.ijres.org Volume 10 Issue 9 ǁ September 2022 ǁ PP. 454-455

Comparative Study on the sensory score of soft drink prepared from different type of chhana whey

Dr. Devesh Gupta
*Associate Professor (Dairy Science and Technology),J.V.(PG) College, Baraut, Baghpat (U.P.)250611*Email-deveshgupta1969@gmail.com*

ABSTRACT
The present study was planned to know the best sensory quality of soft drink prepared by different type of chhana whey. It can be concluded buffalo milk chhana whey soft drink was highly acceptable.
Key words- *Chhana whey, Soft drink, Sensory score*

Date of Submission: 07-09-2022 Date of acceptance: 22-09-2022

I. Introduction

India is the highest milk producing country (209.96 million tons during 2021-22) of the world. About 45.0 percent of total milk produced in India is converted into manufacture of Indigenous milk product (Dairy India 2007).Pattern of milk consumption in India indicates that about 6.0 percent of milk utilized as chhana making(Sahu and Das 2009).Chhana whey is a fluid obtained during preparation of chhana. The estimated values of whey production in India is about 5.0 million tons per year (Gupta2020).The perusal of the following Table No-01 we are know the average composition of chhana whey-

Table No-01 Showing the average composition of chhana whey

S.N.	Constituents in percent	Average composition
1	Water	93.62
2	Fat	0.51
3	Protein	0.39
4	Lactose	5.05
5	Mineral	0.43
6	Total solids	6.38
7	pH	5.60

Upadhyay and khan 1979).

Objective of study-Attempt was made to study the sensory score of chhana whey soft drink prepared from different type of chhana whey like as cow milk, buffalo milk, mixed milk, cultured and market whey.

II. Review and Literature-

Upadhyaya and Khan (1979) have studied the utilization of whey for the preparation of soft drink and reported that paneer whey was found higher storage quality as compared cheese whey.

Gagrani and Rathi(1987) prepared whey beverage with an acidity of 0.5% using orange, pine apple guava and mango fruit flavour. They reported that mango flavoured whey drink was superior to others

Gupta (1989) has studied the variation of yield and quality of chhana and utilization of whey for soft drink. He reported that orange flavour soft drink prepared from citric acid was highest score.

Gupta and Mathur (1989) emphasize d on exploring the potential of utilization of whey in whey drink and beverages.

Parjane, Sontake,Poul,and Ramad,(2010): study the chemical composition and cost structure of tomato soup prepared from different level of chhana whey. The chhana whey based tomato pulp prepared from the combination of 25 part tomato pulp and 75 part chhana whey was most acceptable.

Gupta (2020) study the orangoleptic score of different flavoured whey drink. Orange flavoured citric acid chhana whey soft drink was highly preferred.

Material and Methods- 10 samples of chhana whey collected each from cow milk, buffalo milk, mixed milk and market whey . All the chhana whey samples were prepared from lemon juice coagulant (3.0%).The whey was examined for its quality as per A.O.A.C(1970).The perusal Table No-2 showing the average composition of chhana whey-

S.N.	**Characters in percent**	Average value Cow milk chhana whey	Average value buffalo milk chhana whey	Average value mixed milk chhana whey	Average value market chhana whey
1	Acidity	0.214	0.222	0.229	0.230
2	Fat loss	0.51	0.41	0.44	0.490
3	Casein	0.658	0.540	0.575	0.524
4	Lactose	4.52	4.55	4.59	4.540
5	Yield of whey	80.00	79.10	80.70	81.450

after filtration of whey the acidity of each lot was adjusted up to 0.25%with the help of lactic acid or soda, stabilizer(sodium alginate) was added in liquid condition @0.5%.Ageing of stabilizer for 30 minutes. Whey was pasteurized 850C for 5 minutes and then cooled up to 370c, 5% sugar was added to every drink. To make drink acceptable, it was flavoured by orange flavours @0.25 ml per litre with orange colour @ 10drop per litre as suggested by Gagrani and Rathi(1987) with slight modification. For getting cultured whey fresh chhana whey inoculated with 3% starter culture .After 8-10 hours incubation at 370c .Samples were stored at 10oC for sensory score evaluation by using score card (total sensory score100) technique as described by body felt (1981) with slight modification. Data were analyzed statistical as per Panse and Sukhatme (1985).

III. Result and Discussion

The sensory score of different type chhana whey soft drink are presented in Table No-03-

Table No-03-Showing the sensory score of soft drink prepared from different type of whey drink

S N	Characters	Perfect score	Samples of flavoured Soft drinks (10OC) prepared from different whey				
			Cow milk chhana whey	Buffalo milk chhana whey	Mixed milk chhana whey	Market chhana whey	Cultured chhana whey
			21.80	22.70	23.80	21.37	24.00
1	Flavour	30					
2	Colour	20	14.70	15.50	14.40	15.70	16.00
3	Viscosity	20	15.05	16.00	12.80	15.95	15.00
4	Consumer acceptability	30	24.00	23.70	22.80	21.20	22.00
5	**Total sensory score**	**100**	**75.55**	**77.90**	**73.80**	**74.22**	**77.00**

It is evident from Table no-3 the highest total sensory score was found in buffalo milk chhana whey soft drink followed by cultured ,cow milk chhana whey soft drink. The lowest quality sensory score was in mixed milk chhana whey soft drink(73.80) .The flavour score (30) was found highest in cultured whey(24.00) drink and lowest in market whey soft drink. Colour was highest in cultured drink and viscosity was in buffalo milk chhana whey and consumer acceptability highest in cow milk chhana whey soft drink (24.00).The work was carried out by D. Gupta et.al(2020) , J,Parrondo(2010) et.al. and Gupta.et.al(1989).

Conclusion- It can be concluded that buffalo milk chhana whey soft drink was highly acceptable.

References-

[1]. **A.O.A.C(1970):**Official methods of analysis. Association of official agri. chemists, Washington, D.C.
[2]. **Body felt, F.W. (1981):**Dairy product score card, Journal of Dairy science,vol64(11)2303-2308.
[3]. **Dairy India Year Book(2007),**A-25 Priyadarshini vihar,New Delhi.
[4]. **Gupta,D.(2020):** Study on organoleptic score of different fruit flavoured whey drink from chhana whey, Research journal of Animal husbandry and Dairy science,vol11(1),June ,6-8.
[5]. **Gupta,V.K. and Mathur, B.N.(1989**): Current trends in whey utilization, Indian Dairy man89(3).
[6]. **Gagrani,RL. and Rathi, S.D.(1987):**Preparation of fruit flavoured beverages from whey, Journal of food science and Technology,vol24(2) 93-94.
[7]. **Parjane,M.A., Sontake,A.T., Poul,S.P. and Ramad,S.S. (2010):** Composition and economics of chhana whey based tomato soup, Research journal of Animal husbandry and Dairy science vol1(2)51-54.
[8]. **Upadhyaya,U.and Khan,A.Q.(1979):**M.Sc . Dairy Technology Thesis, Allahabad Ag. Institute, Allahabad.
[9]. **Panse,V.G. and Sukhatme,P.V.(1985):**Statistical methods for agricultural works ,Publication and information Div, I.C.A.R, New Delhi.
[10]. **Sahu,J.K.and Das,H.(2009);**A continuous heating and coagulation unit for continuous production of chhana ,Assam Univ. J. Sci.Tech. Phys.Sci. &Tech., 4:40-45(Google scholar).