International Journal of Research in Engineering and Science (IJRES)
ISSN (Online): 2320-9364, ISSN (Print): 2320-9356
www.ijres.org Volume 12 Issue 7 ǁ July 2024 ǁ PP. 71-72

Comparative Study on the sensory score of different type of chhanna whey drink

Dr. Devesh Gupta
Associate Professor /Head (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 qualityscore of soft drink prepared by market and cultured chhana whey using mango ripe and pine apple flavours. It can be concluded that pine apple flavoured chhana whey soft drink prepared from market whey was highly acceptable.
Key words- *Chhana whey, Soft drink, Sensory score*

Date of Submission: 01-07-2024 Date of acceptance: 12-07-2024

I. Introduction-

About 45.0 percent of total milk produced in India is converted into manufacture of milk product (Dairy India 2007).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 world production of whey is estimated at about 165 million tones whereas the estimated values of whey production in India is about 5.0 million tones per year (Silviya et.al.2016).The perusal of the following Table No-01 we are know the typical composition of whey-

Table No-01 Showing the typical composition of chhana whey

S.N.	Constituents in percent	Sweet whey	Acid whey	Chhana whey
1	Fat	0.3	0.1	0.5
2	Protein	0.9	1.0	0.4
3	Lactose	4.9	5.1	5.0
4	Ash	0.6	0.7	0.5

(Silviya et.al.2016).

Objective of study-Attempt was made to study the sensory score of chhana whey soft drink prepared from market and cultured whey.

II. Review and Literature-

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 and Mathur (1989) emphasized 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 the best.

Silviya,R.M, Bhumika,K.,Dabhi,Parmar,S.C. and Aparnathi,K.D. (2016) production of whey proteins by ultra filteration, lactose hydrolysis products and the use of whole whey as a fermentation feedstock are possible options.

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

III. Material and Methods-

20 samples of chhana whey collected market . All the samples were prepared from citric acid coagulant (0.2%).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 market chhana whey
1	Fat	0.490
2	Casein	0.524
3	Lactose	4.540
4	Yield of whey	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 85ºC for 5 minutes and then cooled up to 37ºC. 5% sugar was added to every drink. To make drink acceptable, it was flavoured by mango ripe and pine apple flavours @ 0.25 ml per litre with red and yellow colours @ 10drop per litre as suggested by Gagrani and Rathi(1987) with slight modification. For getting cultured whey fresh market chhana whey inoculated with 3% starter culture . Incubation at 37ºc for 8-10 hours . After incubation same process was adopt for making soft drink.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).

IV. 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

SN	Characters	Perfect score	Market chhana whey		Cultured chhana whey	
			Mango ripe flavour	Pine apple flavour	Mango ripe flavour	Pine apple flavour
1	Flavour	30	22.15	22.50	21.00	22.00
2	Colour	20	16.60	16.47	14.50	15.00
3	Viscosity	20	16.70	16.67	16.00	16.00
4	Consumer acceptability	30	22.12	23.20	22.00	22.00
5	**Total sensory score**	**100**	**77.57**	**78.84**	**73.50**	**75.00**

It is evident from Table no-3 the highest total sensory score was found in pine apple flavoured chhana whey soft drink prepared from market whey followed by mango ripe flavoured market whey soft drink. The lowest quality sensory score was in mango ripe flavoured cultured chhana whey soft drink(73.50) .The flavour score (30) was found highest in pine apple flavoured chhana whey soft drink prepared from market whey and lowest in mango ripe flavoured cultured whey soft drink(21.0). Consumer acceptability was also highest in pine apple flavoured market chhana whey soft drink (23.20).The same type of work was carried out by D. Gupta et.al(2020) , Silviya ,et.al.(2016) ,J,Parrondo(2010) et.al. and Gupta. et. al (1989).

Conclusion- It can be concluded that pine apple flavoured chhana whey soft drink prepared from market whey was highly acceptablein comparison to cultured whey.

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]. **Panse,V.G. and Sukhatme,P.V.(1985):**Statistical methods for agricultural works ,Publication and information Div, I.C.A.R, New Delhi.
[9]. **Silviya,R.M, Bhumika,K.,Dabhi,Parmar,S.C. and Aparnathi,K.D. (2016);**Whey and its utilization,International journal of current microbiology and applied scicence, Vol-5(8)pp134-155.
[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).