

Development of Technology for Processed Cream Cheese Based Spread

Krupa B. Hirpara and H. G. Patel

Department of Dairy Processing & Operations, SMC College of Dairy Science, AAU, Anand-388110

E-mail: krupahirpara@yahoo.in

Introduction

Cream cheese is a soft, mild, rich, unripened cheese and is a creamy white, slightly acidic tasting product with a diacetyl flavor. It is usually manufactured by the coagulation of cream or mixture of milk and cream by acidification with starter culture and is ready for consumption after the manufacturing process is complete.

Methodology

Milk was standardized at three different levels, viz. 2 %, 4 % and 6 %. Two different Thermophilic and a Mesophilic culture were used for the purpose of milk coagulation. They were used as single strain as well as in combinations. The mix was held at the specific temperature until it reached the desired pH of 4.9. After coagulation, milk gel at pH 4.9 was cut and was followed by cooking at 47°C for 10 min. The draining step for removing whey by straining the curd and letting it drain by gravity for 20 min to have the desired moisture for the product. After whey separation, the hot curd was mixed with salt which was tried out at various levels, viz., 0.8%, 1 % and 1.2 % and stabilizer (a combination of guar gum and WPC) in addition to the normally employed emulsifier blend for spread. The curd was mixed with salt and stabilizer blend and heated to 78 °C keeping 79 RPM in a Stephan kettle to get a good mixture and modify the texture of the product.

Results and Discussion

Technology is developed for *processed cream cheese based spread* with essential modifications in manufacturing process of cream cheese which suits Indian taste and requirement. Milk was standardized at 4 % level was found suitable for manufacture. Combination of two different Thermophilic cultures give better body and texture with greater yield as compared to that given by Mesophilic strain which takes longer time for coagulation and gives very soft body of curd which was difficult to handle. The mix was held to desired pH of 4.9. is suitable for coagulation, and cutting. Salt was added @ 1% which gave acceptable sensory score. The curd was mixed with salt and stabilizer blend and heated to 78°C keeping 79 RPM in a Stephan kettle to get a good mixture and modify the texture of the product. The shelf life of the hot pack product is ~ 3 months at 4-6°C. Developed *processed cream cheese based spread* has moisture in range of 56 to 58%, fat 25 to 28%, protein 10 to 13 % and lactose 1 to 2 %.

Conclusion

A good quality *Processed Cream Cheese Based Spread* should have a uniform white to light creamy color, slightly lactic acid and diacetyl flavour. It has a smooth texture without presence of any lumps, grittiness, or indication of cracks and wheying off and is spreadable at refrigeration temperature.

ABSTRACT



National Seminar on "Indian Dairy Industry - Opportunities and Challenges"



With Best Compliments From

THE ONE THING THAT
MAKES ALL OUR PRODUCTS
DELIGHTFULLY DELICIOUS
IS THE GOODNESS OF
OUR MILK.



happy food
happy people



happy mix of
real fruits
with delicious
curd.



rich
creamy
happiness.

sweet rich
creamy
happiness.



happiness
of juicy
mangoes
with mishti
doi.



thick rich
fruity
happiness.



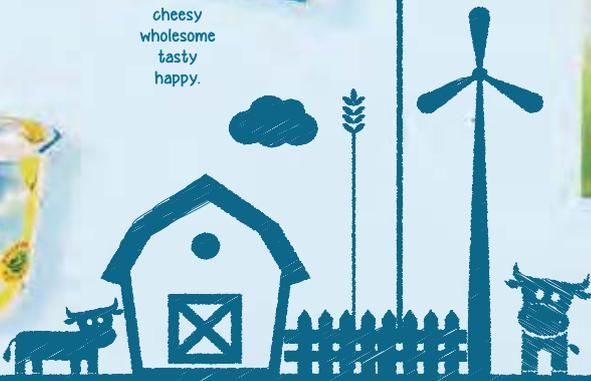
cheesy
wholesome
tasty
happy.



the happiest
mix of healthy
and tasty.



soft creamy
delicious
happiness.



With Best Compliments From



Quality for Life™

**We offer you
a peace of mind.**



DELVO®FRESH



DELVO®CHEESE



DELVO®YOG

DSM Food Specialities

Windsor House, 401, 4th Floor, CST Road, Kalina,
Santacruz (East), Mumbai - 400 098
T +91 22 40349100, M + 91 7567225022, F + 91 22 40349199
pravin.singh@dsm.com www.dsm-foodspecialities.com

HEALTH - NUTRITION - MATERIALS



DSM

BRIGHT SCIENCE. BRIGHTER LIVING.

With Best Compliments From



Gayatri Dairy Products Pvt. Ltd

List of Products that we are Manufacturing are as follows:-

1. Liquid Milk
2. Butter
3. Ghee
4. Butter Milk
5. Skimmed Milk Powder

Gayatri Dairy Products Pvt. Ltd

Block No 795, Opp. Torrent Pharmaceuticals,
A'bad- Mehsana High Way,
Village-Indrad, Ta-Kadi, Dist-Mehsana,
Gujarat. INDIA
Pincode - 383341
Tel. No. - 02764-232156/ 234157
Mob. No. - 9427044645/ 9428510159
E-mail - hr@gayatridairy.co
gayatridairy2005@yahoo.co.in

With Best Compliments From



AAU CAMPUS, ANAND – 388 110

TRAINING PROGRAMME SCHEDULE FROM JAN 2015 TO DEC 2015

Vidya Dairy a Student Training Institute imparts hands-on experience to the B. Tech (Dairy Technology) students of SMC college of Dairy Science-Anand. Besides imparting regular training to B. Tech (DT) students, the dairy also organizes Short-Term Training Programmes for the benefit of the industry in association with the Faculty of Dairy Science, Anand. These programmes are aimed at giving broad orientation of technological and analytical aspects of milk and major milk products along with hands – on – experience of the operations to the dairy / non-dairy personnel working in plant and laboratory areas. This helps the organization to improve efficiency, reduce cycle time and cost.

Month	Schedule	Course Name	Fee* (INR)
Jan-15	05/01/2015 to 10/01/2015 (6 Days)	Dairy Technology for Non Dairy Technologist (Eng)	10000/-
	19/01/2015 to 23/01/2015 (5 Days)	Management of Bulk Milk Cooling System and Clean Milk Production(Hindi)	8000/-
	29/01/2015 to 31/01/2015 (3 Days)	Packaging Technology for Milk and Value Added Milk Products	10000/-
Feb-15	02/02/2015 to 04/02/2015 (3 Days)	Technology of Fermented and Probiotic Dairy Products	7000/-
	11/02/2015 to 14/02/2015 (4 Days)	Application of Elementary Statistics in Managing Quality of Products and Services	15000/-
	16/02/2015 to 21/02/2015 (6 Days)	Laboratory Practices in Dairy and Food Plant	10000/-
Mar-15	09/03/2015 to 11/03/2015 (3 Days)	Applying Project Management in Dairy and Food Plant	10000/-
	16/03/2015 to 21/03/2015 (6 Days)	Dairy Technology for non-Dairy Technologist (Eng)	10000/-
	23/03/2015 to 25/03/2015 (3 Days)	Management of Bulk Milk Cooling System (Guj)	5000/-
Apr-15	06/04/2015 to 08/04/2015 (3 days)	Detection of Adulterants in Milk	6000/-
	20/04/2015 to 25/04/2014 (6 days)	Dairy Technology for Non Dairy Technologist(Gujarati)	9000/-
May-15	04/05/2015 to 07/05/2015 (4 days)	Sensory Evaluation of Milk and Milk Products	7000/-
	18/05/2015 to 23/05/2015 (6 days)	Technological and Engineering Aspects of Milk Condensing and Drying plant	12000/-
	25/05/2015 to 30/05/2015 (6 days)	Laboratory Practices in Dairy and Food Plant	10000/-
Jun-15	01/06/2015 to 03/06/2015 (3 days)	Technology of Fermented and probiotic Dairy products	7000/-
	08/06/2015 to 13/06/2015 (6 days)	Dairy Technology for Non Dairy Technologist(Eng)	10000/-
	15/06/2015 to 17/06/2015 (3 days)	Management of Bulk Milk Cooling System(Guj)	5000/-
Jul-15	06/07/2015 to 10/07/2015 (5 days)	Advances in Fat Rich Dairy Products (Ghee, Butter, Margarine, AMF/Butter Oil)	8000/-
	20/07/2015 to 25/07/2015 (6 days)	Technological and Engineering aspects of cheese Making	10000/-
Aug-15	03/08/2015 to 08/08/2015 (6 days)	New Developments in Energy Management of Dairy and Food Operations	12000/-
	17/08/2015 to 21/08/2015 (5 days)	Management of Bulk Milk Cooling System and Clean Milk Production (Hindi)	8000/-
Sep-15	07/09/2015 to 12/09/2015 (6 days)	Laboratory Practices in Dairy and Food Plant	10000/-
	14/09/2015 to 16/09/2015 (3 days)	Detection of Adulterants in Milk	6000/-
	21/09/2015 to 23/09/2015 (3 days)	Management of Bulk Milk Cooling System(Guj)	5000/-
Oct-15	05/10/2015 to 10/10/2015 (6 days)	Dairy Technology for Non Dairy Technologist(Eng)	10000/-
	26/10/2015 to 28/10/2015 (3 days)	Technology of Fermented and Probiotic Dairy Products	7000/-
Nov-15	02/11/2015 to 05/11/2015 (4 days)	Sensory Evaluation of Milk and Milk Products	7000/-
	23/11/2015 to 28/11/2015 (6 days)	Dairy Technology for Non Dairy Technologist(Guj)	9000/-
Dec-15	07/12/2015 to 09/12/2015 (3 days)	Packaging technology for Milk and Value Added Milk Products	10000/-
	14/12/2015 to 19/12/2015 (6 days)	Technological and Engineering aspects of ice cream Plant	10000/-

Fee* to be paid by DD in favour of VIDYA DAIRY payable at Anand, is inclusive of food, accommodation (double occupancy) and service tax. Due to unforeseen circumstances, programme dates may change / get cancelled in some cases. Prior confirmation is therefore, a must before participating in any programme. Contact: Training Co-ordinator 09377211866 / 09377925129, 02692-221503, 02692-626501 Email : trainings@vidyadairy.in / paoffice@vidyadairy.in Website : www.vidyadairy.in