

## **DEPARTMENT OF COMMUNITY MEDICINE**

### **Proposal letter**

Date – 09.02.2023

To,  
The Principal,  
Rajkot Homoeopathic Medical College,  
Parul University, Rajkot,  
Gujarat.

SUBJECT – TO ARRANGE AN ACADEMIC VISIT TO AMUL DAIRY.

Respected Sir,

As per the curriculum by the National Commission for Homoeopathy, Govt. of India, it is mandatory to arrange an academic visit for the students of 4<sup>th</sup> BHMS at any dairy industry. So, in this regard we are seeking your permission to arrange an academic visit at Amul Dairy, Rajkot in February, 2023.

Your kind co-operation is highly solicited.

Thanking you,  
Yours sincerely,



② Das 9/2/23

Prof (Dr) A. K. Das.

H.O.D

Department of Community Medicine.

HOD  
Department of  
Community Medicine

permitted  
9/2/23



**Parul**

Established & Incorporated Under Gujarat Private Universities  
(Second Amendment) Act, 2015 (Guj. Act No. 7 of 2015)

**DEPARTMENT OF COMMUNITY MEDICINE**

Date – 10 February 2023.

To  
The Manager  
Amul Dairy,  
Dudhsagar Main Road,  
Rajkot.



**SUBJECT – TO GRANT PERMISSION FOR ACADEMIC VISIT.**

Respected Sir,

As per the curriculum by the National Commission for Homoeopathy, Govt. of India, it is mandatory to arrange an academic visit for the students of 4<sup>th</sup> BHMS at any Dairy Industry. So in this regard we are seeking your permission to arrange an academic visit on dated 20.02.2023 for the students of 4<sup>th</sup> BHMS Roll No.1-50 & 21<sup>st</sup> February 2023 from Roll No. 51 Onwards. Our students will follow the rules and regulations of the visit and 105 students will attend in batches under the supervision of the faculty member of the Department of Community Medicine, Rajkot Homoeopathic Medical College, Parul University.

Hope our students will not be deprived from your benevolence.

Thanking you,  
Yours sincerely,

*(Signature)*  
10/2/23

Prof (Dr) A. K. Das.

H.O.D

Department of Community Medicine. Rajkot Homoeopathic Medical College.

**HOD**

Department of  
Community Medicine

*(Signature)*  
10/2/23

Prof (Dr) H.N. Mehta.

PRINCIPAL.

**PRINCIPAL**

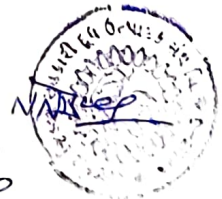
RAJKOT HOMOEOPATHIC MEDICAL COLLEGE  
RAJKOT.

Received.  
10/02/22

visited on 20/02, 21/02.

**Rajkot Homoeopathic Medical College**  
Faculty of Homoeopathy

*(Signature)*



Gondal Road, Rajkot - 360002, Gujarat, India

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**PARUL UNIVERSITY**  
**RAJKOT HOMOEOPATHIC MEDICAL COLLEGE**  
Department of Community Medicine


Date-13-02-2023

**CIRCULAR**

All the students of .....4th..... BHMS are hereby informed that  
Department of Community Medicine has organized an academic visit to  
...Amul Dairy Industry.....on 20-02-2023

Your presence is mandatory. Absence without prior permission will attract a disciplinary action.



 13/02/23  
HOD

Dept. of Community Medicine

**HOD**  
Department of  
Community Medicine





**Parul**  
University

**A REPORT ON**  
**VISIT TO**  
**AMUL DAIRY RAJKOT**

**DUDHSAGAR RD, NEAR NEW POWER HOUSE**  
**GEB PGVCL, RAJKOT, GUJARAT 360003**

**ORGANIZED BY**

**DEPARTMENT OF COMMUNITY MEDICINE**  
**RAJKOT HOMOEOPATHIC MEDICAL COLLEGE**

**PARUL UNIVERSITY**

**Guided by:**

**DR. ANUP KUMAR DAS**

**(HOD of Department of Community Medicine)**

**DR. HUMANI SHARMA**

**(Assistant Professor of Community Medicine)**

**PRINCIPAL**  
**RAJKOT HOMOEOPATHIC MEDICAL COLLEGE**  
**RAJKOT.**

**HOD**  
**20/2/23**  
**Department of**  
**Community Medicine**

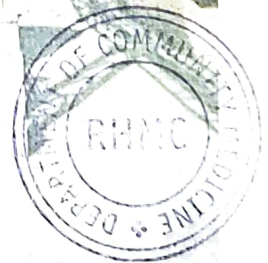
**Prepared by:**

**VAGHELA NUTAN**

**ROLL NO - 95**

**Batch- B 4th BHMS**

**A.Y. - 2022-24**



## • PLACE OF VISIT:

AMUL DAIRY , RAJKOT  
DUDHSAGAR RD, NEAR NEW POWER HOUSE GEB  
PGVCL, RAJKOT, GUJARAT 360003

## • DATE OF VISIT:

20<sup>TH</sup> FEBRUARY 2023

## • AIM OF VISIT:

To understand the role collection, processing and distribution of milk and milk hygiene.

To understand the methods and process of pasteurization of milk at industry level.





- **WHAT IS PASTEURIZATION OF MILK?**

**Pasteurization of milk is a process of heating the milk to such temperatures and for such periods of time as are required to destroy any pathogen that may be present while causing minimal changes in the composition, flavour and nutritive value.**



# **METHODS OF PASTEURIZATION** **OF MILK**

- **High Temperature Short Time (HTST):**  
This method involves using metal plates and hot water to raise the temperature of the milk to at least 161 °F (71 °C) for no less than 15 seconds, or 145 °F (62 °C) for 30 minutes, followed by rapid cooling.
- **Holder method :** in this process , milk is kept at 63-66 deg.C for atleast 30 min and then quickly cooled to 5 deg.C, recommended for small and rural community ,

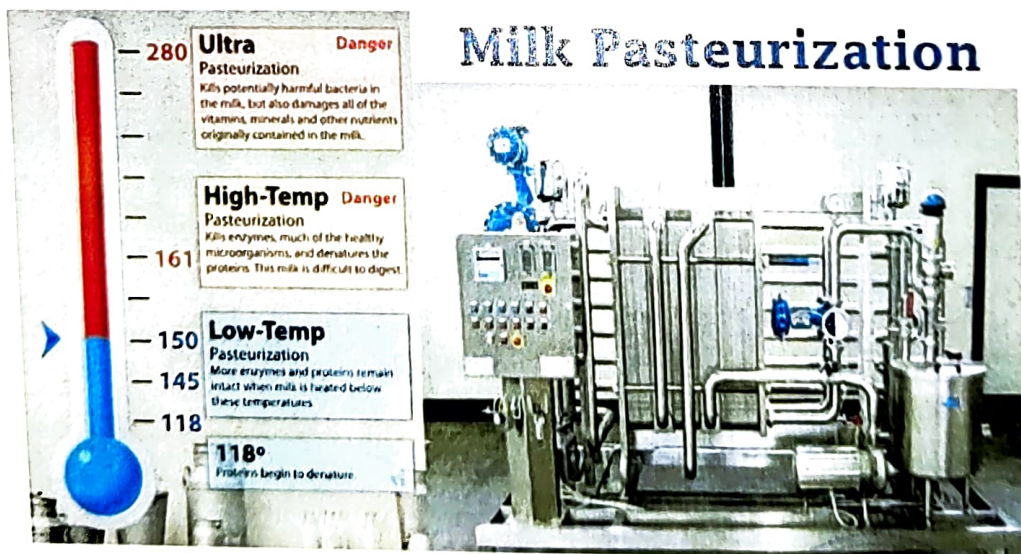


- **Ultra High Temperature (UHT):**  
This process involves heating the milk using commercially sterile equipment and filling it under aseptic conditions into hermetically sealed packaging. The milk must be heated to 280 °F (138 °C) for at least two seconds, then rapidly cooling it down. UHT kills more bacteria (good and bad) and gives it a much longer shelf life.
- **UHT milk does not need refrigeration, until opened, and is shelf stable for at least six months.**
- **Ultra Pasteurized (UP):**  
Not to be confused with UHT,  
**Ultra Pasteurized**





- (UP) milk is heated using commercially sterile equipment, but it is not considered sterile because it is not hermetically sealed. Milk is heated to 280 °F (138 °C) for at least two seconds, then rapidly cooling it down. Since the milk is not hermetically sealed, it must be refrigerated with an average shelf life of 30 - 90 days.



# **MILK BORNE DISEASES**

- **Joint FAO/WHO Expert Committee (1970) on Milk Hygiene classified milkborne diseases as under:**

**A. Infections of animals that can be transmitted to man.**

## **-Primary importance**

- **Tuberculosis**
- **Brucellosis**
- **Streptococcal Infections**
- **Staphylococcal enterotoxin poisoning**
- **Salmonellosis**
- **Q fever**

## **-Lesser importance**

- **Cow-pox**
- **Foot and mouth disease**
- **Anthrax**
- **Leptospirosis Tick-borne encephalitis.**



**B. Infections primary to man that can be transmitted through milk:**

- ***Typhoid and Paratyphoid fever***
- ***Shigelosis***
- ***Non-diarrheal diseases***
- ***Streptococcal infection-***  
***Staphylococcal***
- ***Diphtheria***
- ***Tuberculosis***
- ***Enterovirus***
- ***Viral hepatitis***





# **SOURCE OF INFECTION**

**Milk is an efficient vehicle for great variety of disease agent.**

**the sources of infection or contamination of milk may be**

**(1) the dairy animal**

**(2) human handler**

**(3) the environment e.g.,  
contaminated vessels, polluted  
water, flies, dust etc**



# Test for Pasteurized Milk

## **alkaline Phosphatase Test for Pasteurized Milk**

This test is widely used to check the efficiency of pasteurization. The test is based on the fact that raw milk contains an enzyme called phosphatase which is destroyed on heating at a temperature which corresponds closely with standard time and temperature required for pasteurization at 60 deg. C for 30 minutes. Phosphatase is completely destroyed.

## **STANDARD PLATE COUNT**

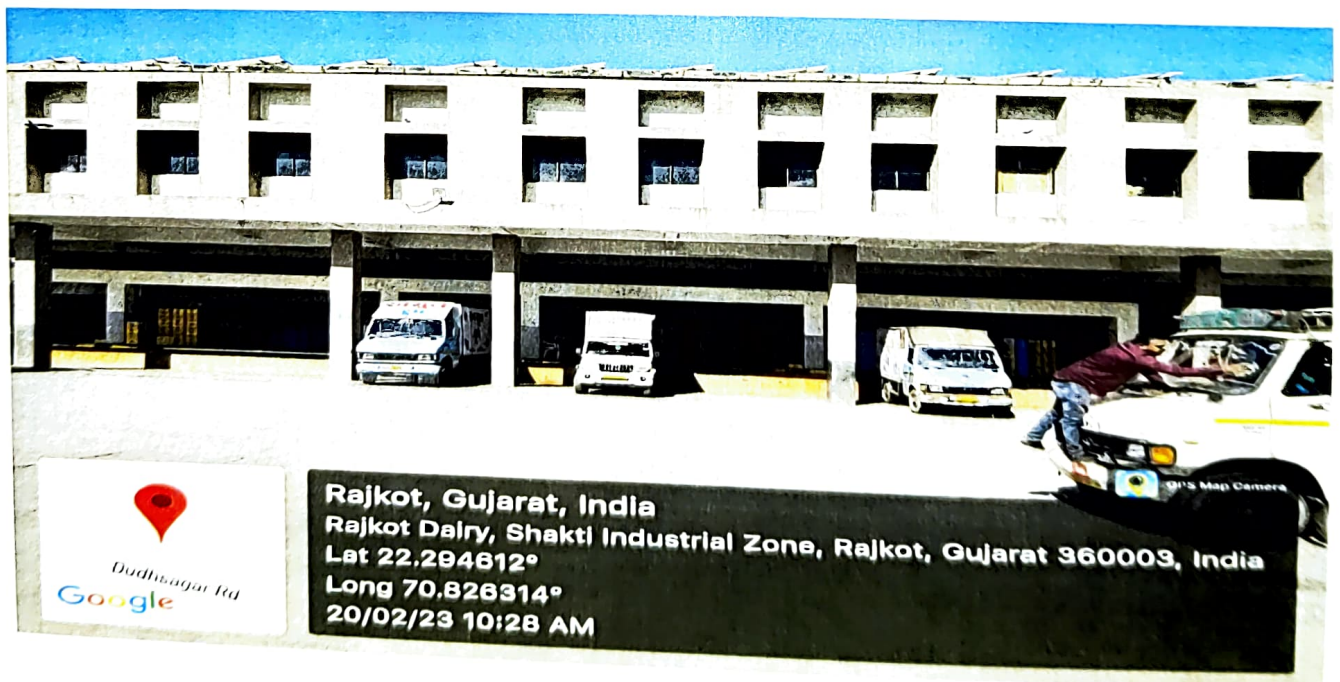
The bacteriological quality of pasteurized milk is determined by the standard plate count. Most countries in the west enforce a limit to 30,000 bacteria count per ml of pasteurized milk.

## **COLIFORM COUNT**

Coliform organisms are usually completely destroyed by pasteurization and therefore their presence in pasteurized milk is an indication either of improper pasteurization or post pasteurization contamination. The standard in most countries is that coliforms be absent in 1 ml of milk.









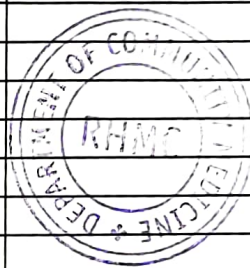
**Parul University**  
**Rajkot Homoeopathic Medical College, Rajkot**  
**Department of Community Medicine**

4TH BHMS

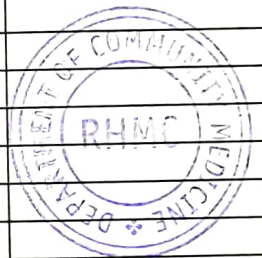
Sub. : Academic Visit to Amul Dairy Rajkot

Date:20/02/2023

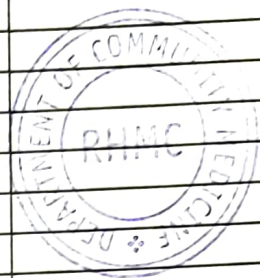
No	Name	Signature	Remarks
1	Adesara Kishan D.		
2	Bagathariya Vandit K.		
3	Balar Kabhi U.		
4	Behruni Mohd Daniyal G		
5	Bhalara Mona M.		
6	Bhatti Abhishek B.		
7	Bhuva Sara S.		
8	Busa Yash J.		
9	Chauhan Bhagirath D.		
10	Chauhan Dhara H.		
11	Chauhan Parth G.		
12	Chavda Disha K.		
13	Chavda Krishna A.		
14	Chavda Mihir S.		
15	Chavda Vishva M.		
16	Chhayani Dhara A.		
17	Choksi Saurin Y.		
18	Chopda Mitesh V.		
19	Dadhania Dency J.		
20	Dangariya Bhadraxi B.		
21	Dhakhada Bhavdip R.		
22	Dharaviya Rashmika J.		
23	Dodiya Harpal V.		
24	Dodiya Shitalben K.		
25	Domadiya Dhruvi H.		
26	Fachara Mitesha D.		
27	Fefar Aarzoo M.		
28	Gadara Anjani C.		
29	Gadara Nishita J.		
30	Gajera Shruti B.		
31	Garsondiya Sujeetkumar D.		
32	Gohil Prerna R.		
33	Gol Priyanshi H.		
34	Gunchala Hetvi D.		
35	Hadiyal Jyotsana P.		
36	Jadav Jay R.		
37	Jadeja Chandniba P.		
38	Jani Kunjan H.		
39	Kagathara Yogita S.		



No	Name	Signature	Remarks
40	Kalavadia Vrinda K.	Vrinda	
41	Kamani Leezaben N.	Leeza	
42	Kanzariya Mohan D.	Mohan	
43	Katara Niraliben P.	Nirali	
44	Khaliyani Aiman A.	Aiman	
45	Khandar Ravi C.	Ravi	
46	Kotila Darshanaben N.	Darshan	
47	Koyani Isha L.	Isha	
48	Limbasiya Harsh K.	Harsh	
49	Limbasiya Ruchi H.	Ruchi	
50	Majithiya Jinal S.	Jinal	
51	Makwana Milan R.	ABSENT	
52	Malaviya Grishma A.	Grishma	
53	Malaviya Krutisha P.	Krutisha	
54	Mansuri Alfina Z.	ABSENT	
55	Mithiya Neel P.	Neel	
56	Momin Humaira M.	ABSENT	
57	Nadpara Yashvi P.	Yashvi	
58	Nagvadiya Shraddha D.	Shraddha	
59	Nimavat Gayatri Kartikbhai	Gayatri	
60	Palaliya Mehul R.	Mehul	
61	Panchasara Tulsi K.	Tulsi	
62	Parmar Anjali R.	Anjali	
63	Parmar Manasvi G.	Manasvi	
64	Parmar Pritiben H.	Priti	
65	Parmar Rahul L.	Rahul	
66	Patel Dipankumar S.	Dipankumar	
67	Pathan Hafsabanu S.	ABSENT	
68	Patiwala Vidhi J.	Vidhi	
69	Rajgor Hency J.	Hency	
70	Ramani Dhruvisha N.	Dhruvisha	
71	Ramani Rutvik V.	Rutvik	
72	Rathod Charmi V.	Charmi	
73	Rathod Mamtaben R.	Mamtaben	
74	Sakhiya Ishita M.	Ishita	
75	Samani Pooja B.	Pooja	
76	Sanandiya Charmi S.	Charmi	
77	Sanchaniya Pallavi V.	Pallavi	
78	Sanghani Bansi J.	Bansi	
79	Savadiya Nirali J.	Nirali	
80	Savaliya Nancy V.	Nancy	
81	Savani Dhvani M.	Dhvani	
82	Savsani Avani H.	Avani	
83	Shiyal Hetalben D.	Hetal	



No	Name	Signature	Remarks
84	Shrimali Upasna G.	<i>Upasna</i>	
85	Shukla Arundhati R.	<i>Arundhati</i>	
86	Sindhav Prajval N.	<i>Prajval</i>	
87	Singh Jyoti J.	<i>Jyoti</i>	
88	Sorathiya Rajvi B.	<i>Rajvi</i>	
89	Tadvi Priyanshiben U.	<i>Priyanshi</i>	
90	Tapariya Simaranbahren H.	<i>Simaran</i>	
91	Tarbundiya Arunbhai R.	<i>Arunbhai</i>	
92	Thummar Krupali M.	<i>Krupali</i>	
93	Trivedi Foram R.	<i>Foram</i>	
94	Vachhani Ruchi Y.	<i>Ruchi</i>	
95	Vaghela Nutanbahren V.	<i>Nutan</i>	
96	Vaja Priti Bijal	<i>Priti</i>	
97	Valani Hiren G.	<i>Hiren</i>	
98	Vasaiya Ankitaben P.	<i>Ankita</i>	
99	Hadiyal Pradip R.	<i>Pradip</i>	
100	Jethva Saeed Safibhai	<i>Saeed</i>	
101	Kakkad Priyal Jitendrabhai	<i>Priyal</i>	
102	Khambhala Kalpeshkumar B	<i>Kalpesh</i>	
103	Momin Mahammad Sajid	<i>ABSENT</i>	
104	Momin Mahammad Samir	<i>ABSENT</i>	
105	Zakhra Varis K.	<i>Varis</i>	



20/2/23  
 HOD  
 Department of  
 Community Medicine





**Rajkot Dairy**

**Rajkot District Co-Op. Milk Producers' Union Ltd.**

**રાજકોટ જિલ્લા સહકારી દૂધ ઉત્પાદક સંઘ લિમિટેડ**

Rajkot Dairy, Dudh Sagar Marg, Near New Power House, (GEB/PGVCL), Rajkot - 360 003. (Gujarat) INDIA.



No/MD/Adm/Certi/ 2419


Date: 21/02/2023

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**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that, total - 105 students of 4<sup>th</sup> year BHMS of, Rajkot Homeopathic Medical College, Parul University, Department of Community Medicine had visited Rajkot District Co-operative Milk Producers' Union Ltd. (Rajkot Dairy), Rajkot on dated 20-02-2023.



  
**Managing Director**