INTERNSHIP REPORT

ON

Lovello Icecream Industry

"Taufika Foods and Agro Industries Limited"

Submitted To

Prof. Dr. Md. Bellal Hossain
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Submitted By

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CONTENT

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LETTER OF TRANSMITTAL

15th May, 2019

Professor Dr.Bellal Hossain

Head

Department of Nutrition and Food Engineering

Subject: **Submission of internship report**

Dear Sir,

I am very much delighted to submit my internship report titled "**Technology Used In Taufika Foods And Agro Industries Ltd (Lovello Ice Cream)**" which has been authorized under your supervisions a partial requirement for the completion of internship.

This report endeavors to analyze the learnings and experiences of my two months internship period at **Taufika Foods And Agro Industries Ltd**.

I am thankful to you for your kind support and supervision in my internship.

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CERTIFICATION OF APPROVAL

I am pleased to certify that my internship report **on Lovello Ice-cream at Taufika foods and Agro Industries Ltd.** conducted by **Tisha Sarkar** bearing **ID-(152-34-419)** of Department of Nutrition and Food Engineering has been approved for Defense / Viva Exam under my supervision.

Tisha Sarkar worked at **Taufika foods and Agro industries Ltd**.

I am pleased to hereby certify that the data and test presented in the report are authentic work of **Tisha Sarkar**. I strongly recommended the report presented by **Tisha Sarkar** for further academic recommendation and defense/viva-voce.

Tisha Sarkar bears a strong moral character and very pleasant personality.

I wish his success in life.

_____

Professor Dr. Md. Bellal Hossain

Head

Department of Nutrition and Food Engineering

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ACKNOWLEDGEMENT

First of all, my gratitude goes to my parents for giving me support and courage to complete my duties and responsibilities with sound health.

Then my teachers and fellow mates, who had put me on the map and supported me in every situation.

I would like to express my gratitude to **Prof. Dr. Md. Bellal Hossain**, Head of the Department of Nutrition and Food Engineering, Daffodil International University for creating this enormous scope of practical knowledge with the curriculum and providing me valuable guidance to complete my work.

My deepest respect and thankfulness to **BM Rabbany**, Chief Human Resource Manager, Lovello Ice-cream ltd for allowing me to complete the Internship in Lovello Ice-Cream.

I greatly appreciate

Md.Rafiqul Islam (Assistant manager -Quality Assurance Department),

Md.Shahadot Hossain (Deputy manager-Admin and Compliance),

Md.Abdul Majid (Assistant General Manger-Production),

Md.Mostofa (Deputy Manager –Electrical)

for giving me their valuable time, sharing knowledge and teaching me various practical aspects of industrial life and organizational behavior.

I am bound to the Executives, Junior Executives and Lab Assistants of the Quality Assurance Department

Md.Saddam Hosain - Officer QA.

Md.Liton Miah- Assistant Production Officer.

Md.Tarikul Islam- Assistant Quality Assurance Officer

Md.Shamim Hossain- Assistant Mechanical Engineering

Md.Mozibar Rahman- Senior Tech Officer

Md.Mamun- Mechanical Designation Operator

Md.Amir Shohel- Refrigeration Tech officer of Lovello Ice Cream for supervising, helping and sharing valuable information and co-operation.

ABOUT

In B.Sc. in Nutrition and Food Engineering degree, I got opportunity to work at **Taufika Foods and Agro Industries Ltd Lovello Ice –Cream** which is the part of my internship program.

The duration of my internship was from 9th February 2019 to 14th March 2019.

Taufika Foods and Agro Industries Ltd Lovello Ice-cream is a very popular and dairy based company in Bangladesh, which is situated in Bashile, Kathali, 6 no.Valuka Union Parishad, Mymenshing.

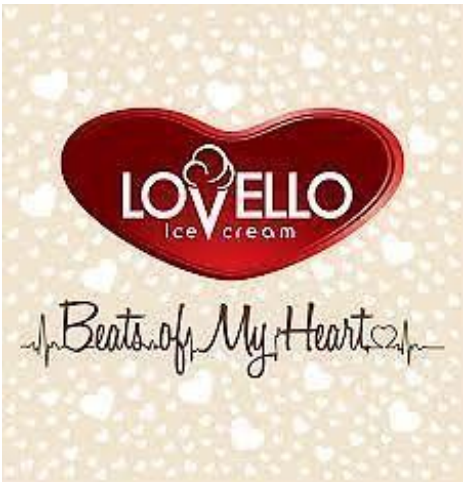
Lovello Icecream has many types of departments and my concern was to get important knowledge from them.

The motto of Lovello Ice-cream "**Beats of my Heart**" suits best to define its various type of products, with more than 50 stock keeping units 52 items product for retailers and business entrepreneurs. Ice creams of Lovello are not only made for only the retailers but also the company has finely serving the demand of the commercial clients of the food business such as premium ice cream serving parlors and ice cream cake.

To reach every pocket of the country the company has established 11 points of major distributors or dealers all over the country.

As a student of Daffodil International University 7's "**Nutrition and Food Engineering**" students were given the opportunity to complete our Lovello ice cream internship for five weeks.

INTRODUCTION



Lovello is the new brand in the ice cream industry in Bangladesh which is being produced and marketed by **Taufika Foods and Agro Industries Limited**. Lovello has gained reputation as well as popularity within a short duration of time.

Another social platform of Lovello ice cream is to share every beats of movement and to be the beats of Bangladesh through spreading love from heart to heart. Lovello ice cream was launched on February 14, 2016 in Bangladesh. Since then, it has been producing healthy and delicious products. Lovello ice cream is made of imported high quality raw materials using state of the art technology .For the first time, it has brought premium quality ice cream named shahi khajur malai with 100% natural khajur flavour, mini cone, voupletu, hidden heart single and heart beats single in mini size variation are being delivered to all classes and segments of consumer around the country. It has created curiosity among people and has been spreading its sales and distribution network all over the country. Lovello is continuing its love and connecting people with one another though its enormous taste and innovational production, operation and communication to be the beats of Bangladesh.

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AIM OF TRAINING

Internship gives an opportunity for the students to connect theory with practice and further serve as a temporary labor pool for those agencies that had steadfast to take part in the internship program. The department fulfills its mission of preparing students for significant professional and administrative positions in all those sectors.

Appropriate professional development topics and workshops were discussed weekly.

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ENGINEERING DEPARTMENT

1. Ammonia plant (nh3 plant)

2. CIP

3. Water treatment plant

4. ETP plant

Ammonia Plant (NH3 Plant)

>Compressor

>Condenser

>Shiffun Trap

>High Pressure Receiver

>Low Pressure Receiver

>Liquid Pump

>Evaporator

Refrigerator

Freon and NH3 are used as refrigerant in refrigeration cycle.

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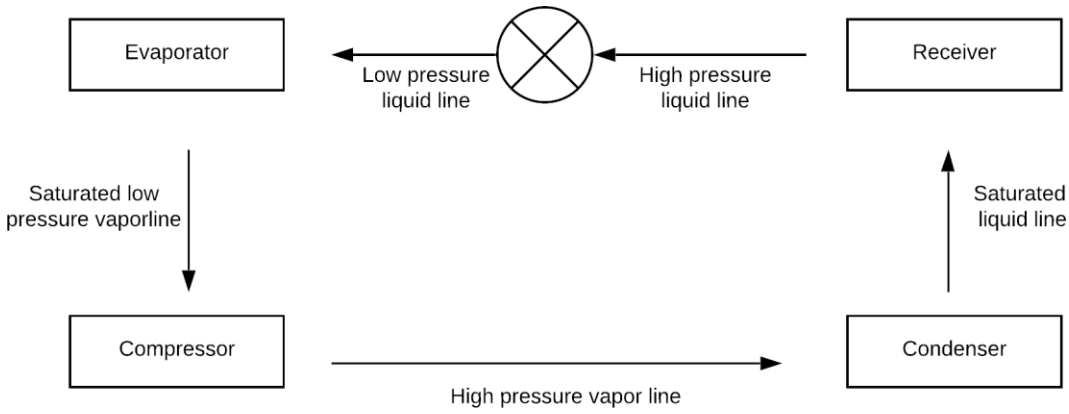
Expansion Valve



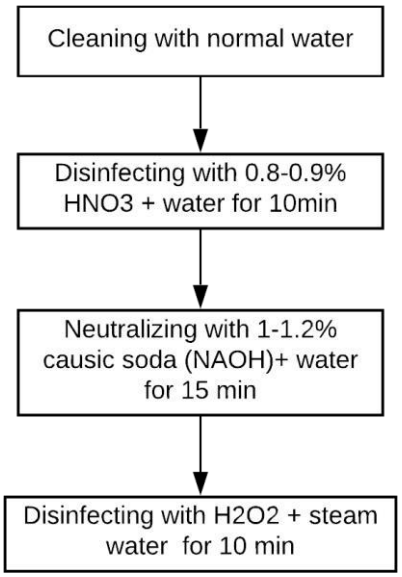
Flowchart 1

CIP

Cleaning in place.

CIP is a method of cleaning the interior surface of pipes, freezers, tanks, process, equipment, pumps, filters, and associated fittings without disassembly

General CIP procedure is as follow



Flowchart 2

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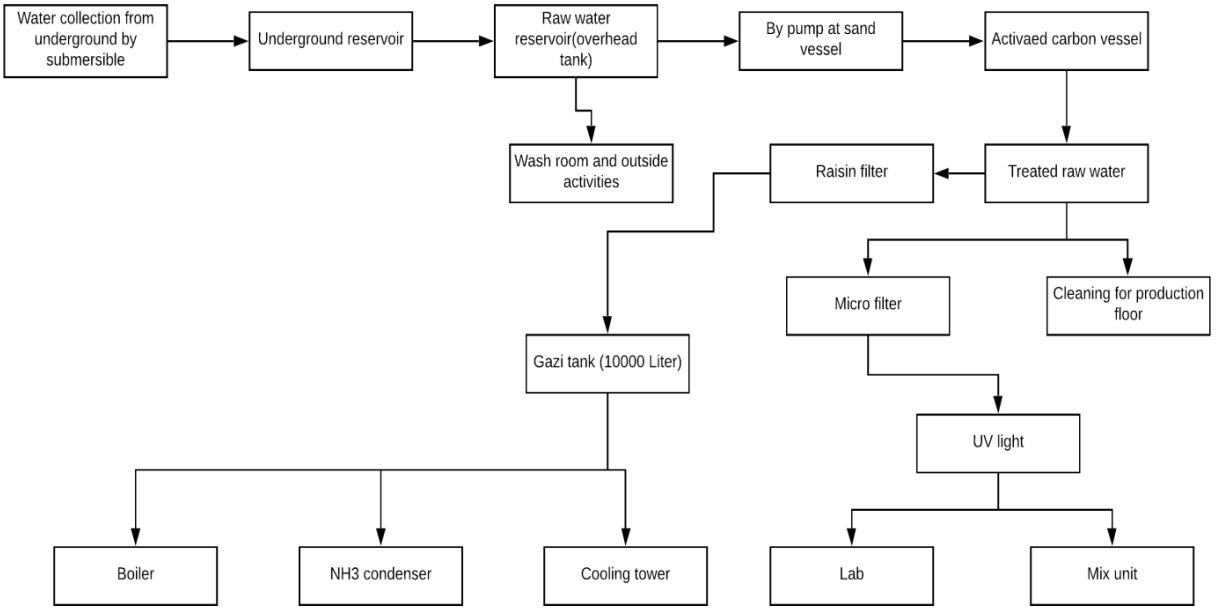
Schematic Diagram of Water Treatment Process



Flowchart 3

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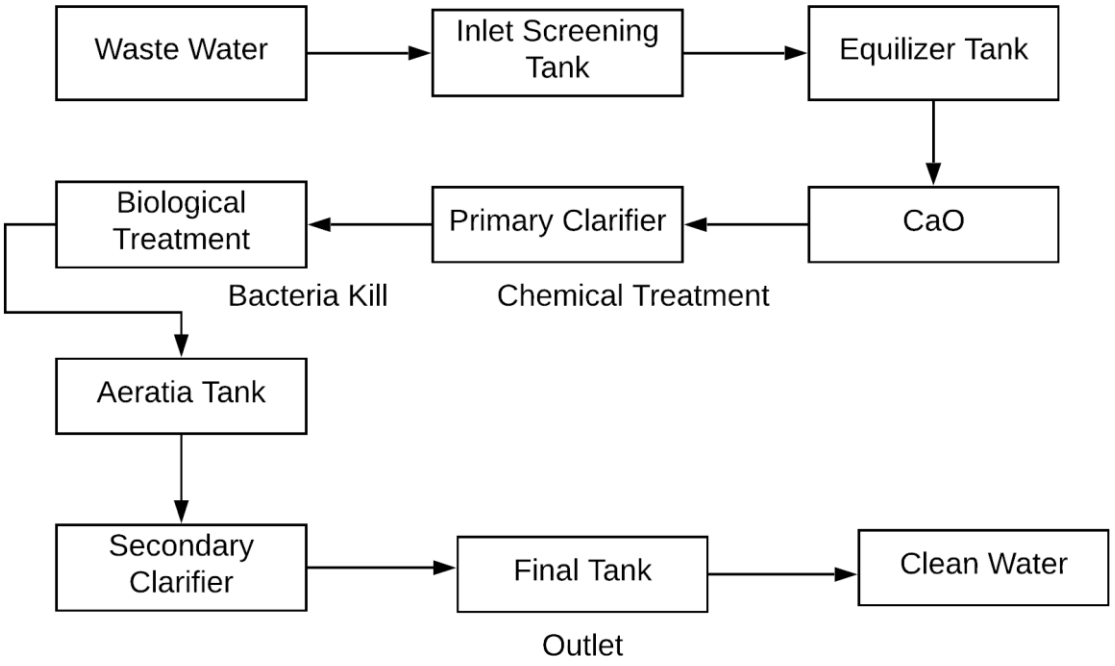
ETP PLANT



Flowchart 4

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PRODUCTION DEPARTMENT

In the production floor there were total seven mixing tanks from which the mixers flowed inside the machine to make the production.

Freezers which freeze homogenize and over run the mixer for further users. The mixing tank volume varies from 1200 liters to 2500.

$$\mathrm{OR} = \frac{\mathrm{Tv} * 1.1 - \mathrm{Aw}}{\mathrm{Aw}} * 100$$

Technology

There were 3 machines works in this industry

>commet C2

>Sl-600c1

>Rollo-23

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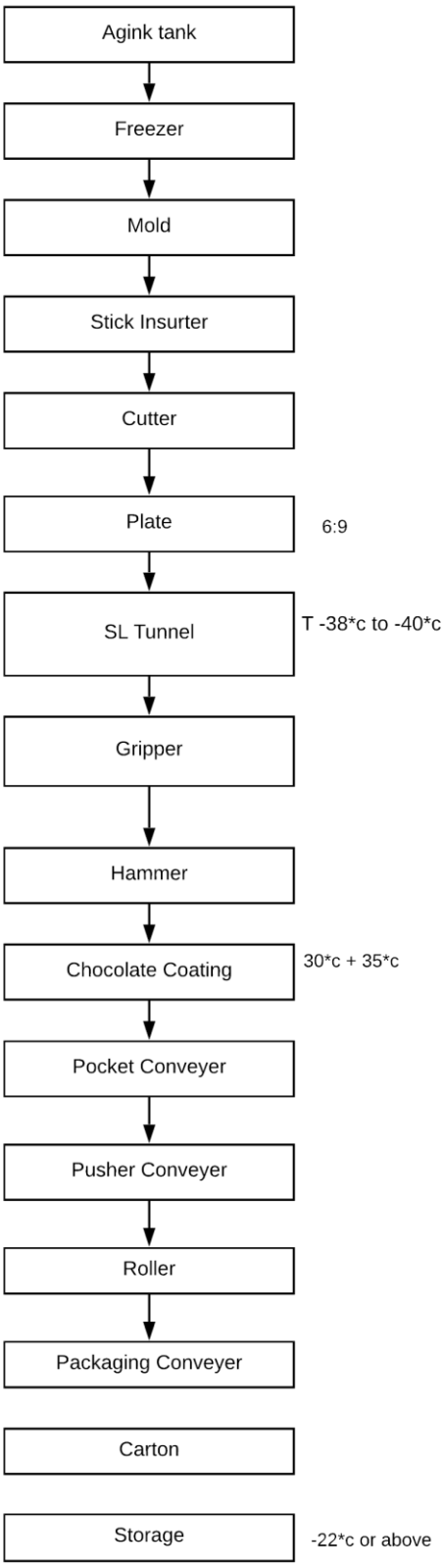
SL- 600 C1



Flowchart 5

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Figure 1: Sl tunnel

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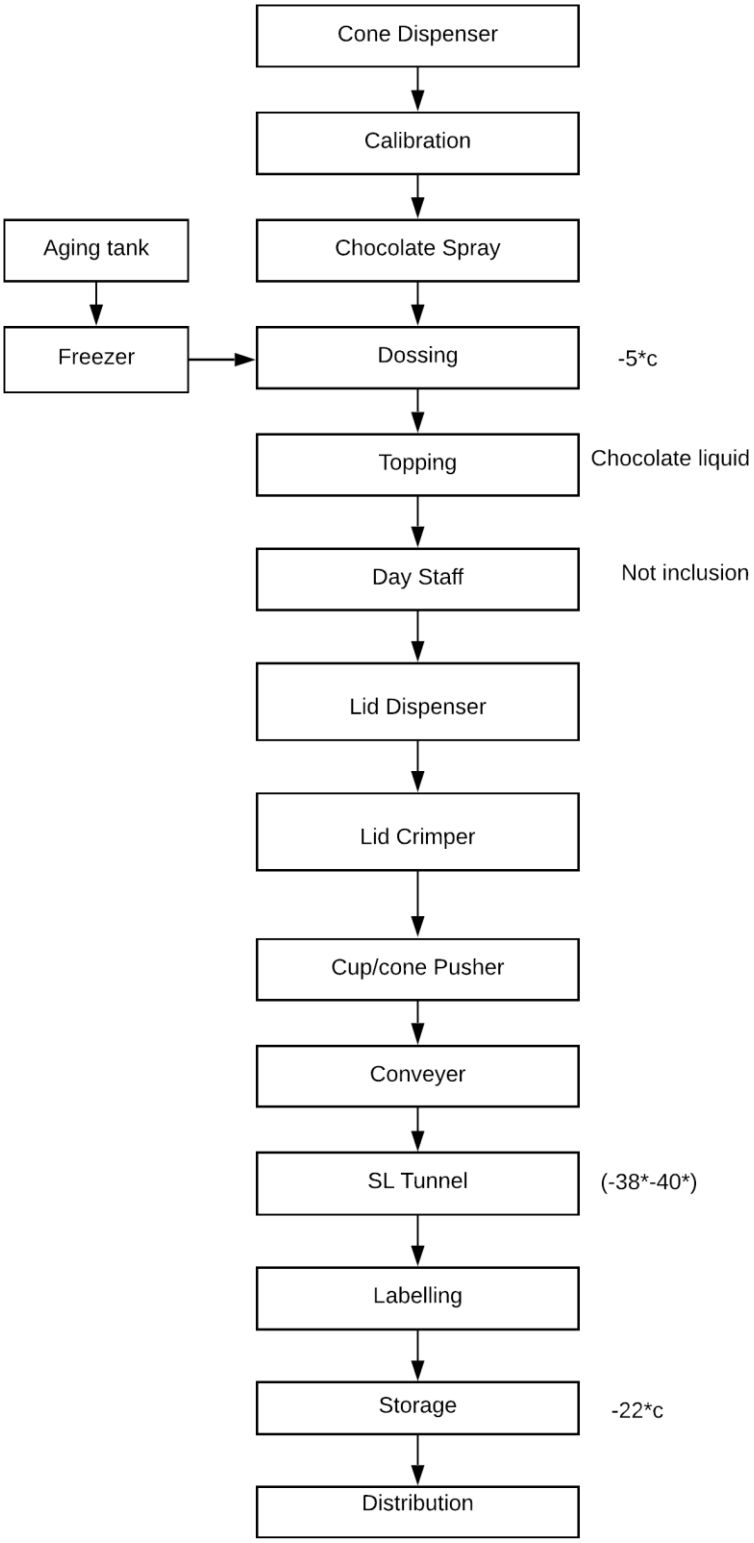

Flowchart 6

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Figure 2: Commet C2

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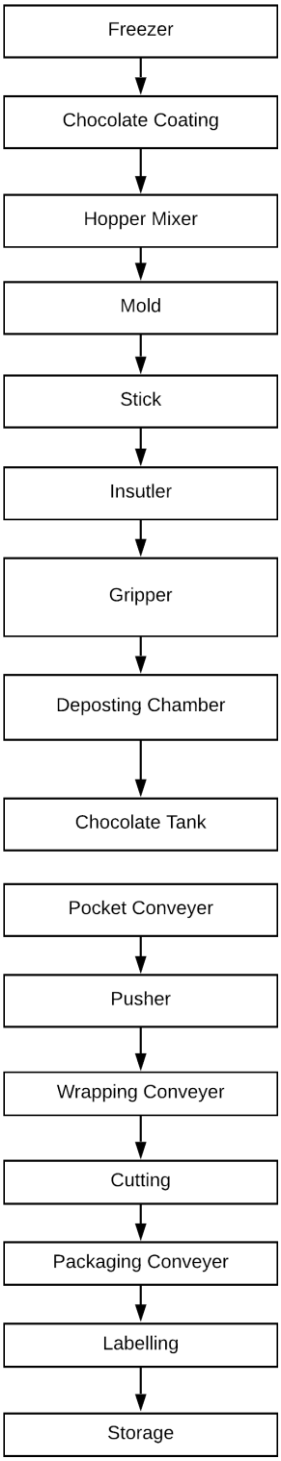
ROLLO-23



Flowchart 7

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Figure 3: Rollo-23

Products

List of products:

The following ice cream products are manufactured at Lovello Ice Cream Unit.

Stick Range

1. Choc-bar
2. Shell and cone
3. Lemon jelly
4. 69 jelly
5. Orange jelly
6. Hidden heart
7. Heart beats single
8. Heart beats double
9. Hazel beats
10. Hazel beats mini
11. Crunchy bar mini
12. Crunchy bar mega
13. Toffee beats
14. Malai bar

Cup Range

15. 50ml vanilla
16. 50ml strawberry
17. 50ml mango
18. 50ml chocolate
19. 100ml vanilla
20. 100ml strawberry
21. 100ml mango
22. 100ml chocolate
23. Swingy sundae
24. Vanilla cone maxi

Cone Range

1. Vanilla cone mini
2. Chocolate maxi
3. Chocolate mini
4. Chorcorilla maxi
5. 250ml vanilla

Family Pack (Regular)

6. 250ml strawberry
7. 250 ml cont.mango
8. 250ml chocolate
9. 500ml vanilla
10. 500ml strawberry
11. 500ml mango
12. 500ml chocolate
13. 1000 ml vanilla
14. 100ml strawberry
15. 1000ml mango
16. 100ml chocolate
17. Double sundae (vanilla + caramel)
18. Double sundae (vanilla + mango)
19. Double sundae (vanilla +strawberry)

Lovello Premium Category:

20. 1000ml Shahi Khajur
21. 1l Round Shape Cake
22. 1.5l Heart Shape Cake
23. Choco Blast.

Lovello Parlor Category:

24. Ambrosia

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QC AND R&D LABORATORY

At Lovello ice cream unit, there was a well-equipped Laboratory for QC and R&D purposes this lab the following items tested.

Item Tested	**QC Test**
Incoming inspection of raw and packaging materials	Test follow as per specification
Ice-cream Mix	• Fat • Specific Gravity • TS • Moisture • Brix • Acidity • Alcohol test • Viscosity test
Raw and Market milk	• Fat • SNF • CLR • CLOT On boiling test • Starch test • Soda test • Acidity • H_2O_2 test
Microbiological tests	• Coli form test • air and environmental monitoring • Swab test • SPC TEST • Yeast and mold count (**YMC**)
Cone biscuits	• Moisture • Weight • Length
ETP	• DO • Oil and Grease • MLSS/TSS • TDS • pH
Others	*Baume test of Brine *Hardness of water

GLUTEN TEST

1. 10g of sample was taken
2. 3ml of water was added
3. Making dough
4. Keeping the dough in water
5. Washing the dough until the starch is removed
6. Weigh the wet gluten
7. Keep it on the foil paper and divide it into smaller parts
8. Keeping them in oven for 4 hours
9. Weight the dry gluten

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BRIX TEST

1. The Brix meter was taken and cleaned with running water
2. Then the receptor was scrubbed with soft cloth or tissue pares to remove any residues from the previous experiment as well as soaking away the cleaning water.
3. The sample was agitated so that concentration of the solid present in the sample can disperse ideally
4. Then some amount of sample was taken by a glass rod and 2 to 3 drops were placed on the receptor
5. The lid of the receptor was placed over to enclose the sample inside it
6. The light entering passage was opened then the receptor end is placed against light source and placing one eye on the eye piece of the brix meter
7. Three types of scales were available in the brix meter , according to the nature of the sample the scale was set by moving the regulator over it
8. The brix displayed by creating a blue-violet level in the display

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FAT TEST

To measure fat percent in ice-cream mix 50% butyrometer was generally used.

Poured 10ml 95% H_2SO_4 (conc.) in a 50% butyrometer by auto dispenser

↓

Add 405 or 5 gm sample in it

↓

Added 1-2 ml Amyl alcohol by auto dispenser. Closed the cork and shaked the butyrometer until proper mixing

↓

Then centrifuge it at 1100-1200 rpm for 5 minutes by placing it in inverted position in the centrifuge machine

Finally, read the fat percent from the graduated scale on the butyrometer.

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CONCLUSION

Activities, organizational structure, unit operations, machines and tools were observed and described as simply as possible for quick and better understanding for the readers. It would be expected that the recommendations would be read and considered for application as early as possible.

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