Internship Report
On
Prome Food Agro products limited

By

**Gopinath Roy**
**ID:191-34-878**

Submitted to the department of Nutrition in the partial fulfillment of
B.Sc in Nutrition and food Engineering

Supervised By

Mr. Md Juwel Rana
Senior Lecturer
Department of NFE

**FACULTY OF ALLIED HEALTH SCIENCE (FAHS)**
**DAFFODIL INTERNATIONAL UNIVERSITY**

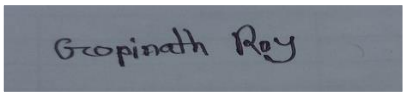
## LETTER OF TRANSMITTAL

Date:22 jan 2023
Mr.Md.Juwel Rana
Senior Lecturer
Department of Nutrition and food Engineering
Daffodil international university
**Subject: Submission of Internship report.**

Dear Sir,
In accordance with the requirements of the BSc in Nutrition and Food Engineering (NFE) program, it is an honor for me to be able to submit my internship report on "Quality Control Assurance and Production of Bakery Products" at "Prome Agro Food Products Limited.

During my internship at "Prome Agro Food Products Limited," I gained the knowledge that is the basis of this report. Working under your active supervision is a great accomplishment and learning opportunity for me. This report is based on the "Quality Control Assurance and Production of Products" conducted for 30 days at "Prome Agro Food Products Limited" under the direction of Md. Shahansha Sarker, (Sr Executive) at Prome Agro " Food Products Limited."

My exposure during this internship was both academic and practical. I've learned a lot about the corporate culture and behavior of a well-known company that manufactures consumer goods during this time.
Sincerely Yours



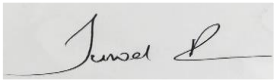

……
Gopinath Roy
ID:191-34-878
Department of Nutrition and Food Engineering
Daffodil international University

## CERTIFICATE OF APPROVAL

It gives me great pleasure to certify that Gopinath Roy's internship report on "Quality Control Assurance and Production of Bakery Products" at "prome Agro Food Products Limited," bearing the ID number 191-34-878, has been approved for presentation, defense, and viva-voce.

I am happy to vouch for the accuracy of Gopinath Roy's work in this report's data and conclusions. For additional academic advice, defense, and viva-voce, I heartily advise reading the report Gopinath Roy presented. Gopinath Roy has a positive outlook on life and a solid personality. It has been a real pleasure working with him, and we wish him well in everything he does.

**Signature of Supervisor**



**…….**

Mr. Md Juwel Rana
Senior Lecturer
Department of NFE
Faculty of Allied Health Science
Daffodil International University

**Signature of the Head (In-Charge)**

**……**

Dr.Nizam Uddin
Associate Professor and Head in Charge
Department of NFE
Faculty of Allied Health Science
Daffodil International University

## ACKNOWLEDGEMENT

I want to start by expressing my sincere gratitude to the Almighty God for his kindness in allowing me to finish my internship report on "Quality Control Assurance and Production of Bakery Products" at "Prome Agro Food Products Limited." To close the theoretical knowledge gap, practical experience as well as academic knowledge is neede. Before anything else, I'd like to express my gratitude to my internship supervisor, Mr. Md. Juwel Rana, Lecturer,(Senior Scale) Department of Nutrition and Food Engineering, Faculty of Allied Health Science, Daffodil International University, for her unwavering guidance throughout my organization attachment period. I am motivated to use this opportunity to express my appreciation to all the people who have supported me throughout my life. The department head and associate professor of nutrition and food engineering at Daffodil International University, Dr Nizam Uddin, has my sincere gratitude. I'm grateful to Associate Dean Professor Dr. Md. Bellal Hossain for their unwavering inspiration and support throughout my time as a student. The Sr Executive at PromeAgro Food Products Limited, Md. Shahansha Sarker , has my sincere gratitude

## EXECUTIVE SUMMARY

Prome Agro Food Ltd.'s motto is "Taste is Different." In addition, their main objective is to provide unadulterated, secure, basic quality food items to ensure a client's ideal solid existence. This report was created using data that was gathered while the author was an intern at "Prome Agro Food Ltd." Working at "Prome Agro Food Ltd." is an amazing accomplishment and experience for me. With reference to "Quality Control and Production of Spices, Pickles, and Biscuits" at Prome Agro Food Ltd. The assembly process for biscuits, spices, and pickles as well as their quality control procedure are included in this report.

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**PROME AGRO FOOD LTD**

## PROME AGRO FOOD LTD

"Makes quality promises"

The premier food production and distribution company in Bangladesh is called Prome Agro Foods Limited. Mr. Md Anamul Hasan Khan (CIP), who serves as the company's executive and managing director, took the initiative to launch the company in 1982. After being governed under different names, Prome Agro Foods Ltd. was given its current name in 2002. It attained exceptional standing as a manufacturer of high-quality standard foods both domestically and internationally. Prome Agro Foods Ltd. has received certifications for ISO22000:2018, BSTI, and Halal from national and international associations for the development of value-added foods. Approximately 3,000 people are employed in this sector at the moment. The company excels in terms of modern hardware. Agro-handling products such as various squashed flavors, toast bread rolls, dried cakes, mango drinks, soda pops, jams, beats, lacchasemai, chanachur, jhalmuri, prepared tea, mugdal fries, mustard oil, chutney, delectable saline, and so on are traded to 17 countries around the world under the Prome Brand, including the Bangladeshi market. With a superior framework in place, deals, and advertising, this company can produce 1,000,000 tons of food items annually. Owners and employees have a strong connection that helps the organization grow. Additionally, the National Revenue Board acknowledged the organization as having the highest rate of value growth in the Dhaka region during the 2013–2014 fiscal year (NRB

“

## Food Production

Introduction

Prome Agro Foods grew up and became Bangladesh's largest processor and exporter of natural products, vegetables, and food items. We make an effort to always drive with confidence and dependability. We aim to be an association of numerous obedient people. serving and assisting our local and international networks. generating abundance through advantages and advancement. practicing and advancing our environmental protection. Food creation refers to the process of converting raw materials into finished foods. These numerous finished or modified food items can be used in both homes and commercial food handling operations. The human body requires food to carry out its vital functions, provide sustenance, and provide energy. The vast majority of unrefined materials and food come from plants and animals. Practically 90% of the world's food is a result of these plants and animals. Grain, honey, meat, dairy products, vegetables, and natural products are some examples of different food and unrefined substances that are separated. Importance of Food Creation A sizeable portion of the population is employed by the food production industry. a source of income for a sizable portion of the population. expands the market and aids in maintaining relationships with strangers. Food Production Steps Three key stages, specifically input, processing, and output, are involved in the production of food. The term "input" refers to the various organic materials required during the production of food. Handling is the process of converting simple fixings into consumable building. The created outcome is additionally the result. Food preparation is divided into several categories, including development, gathering, crop management, safeguarding, and aging, as well as crop preparation, café cooking, searing, barbecuing, and baking

There are seven phases in this food framework, which are listed below.

1.Production of Food: Both gardening and cultivating are included.
2. Publication and overall: Distribution of different types of meat and plants.
3. Managing food: Process of converting natural materials into eatable food items.
4. Promoting: Promotion of handled food products and sales of those products.
5. Buying: Purchasing handled food from different places, such as stores.
6. Utilization: Eating the food that was handled
7. Waste Recovery: Recovering and managing the food waste issue

1.1 First section: Made from biscuits

Biscuit Items: 1. Toasted Butter and Sugar

2. Unique Toast


Figure-1:Toasted Butter


Figure-2:Special Toast

**Production Method for Special Toast**

**Ingredients:**

Wheat Flour
Salt chloride
Yeast
Food-Grade Vegetable Oil
Sugar

**Equipment's**

Assessing Balance
Chiller Device
The bucket
Mold Cutting Equipment
Oven
Tray
Packaging machinery

**Production Process Flow Diagram**

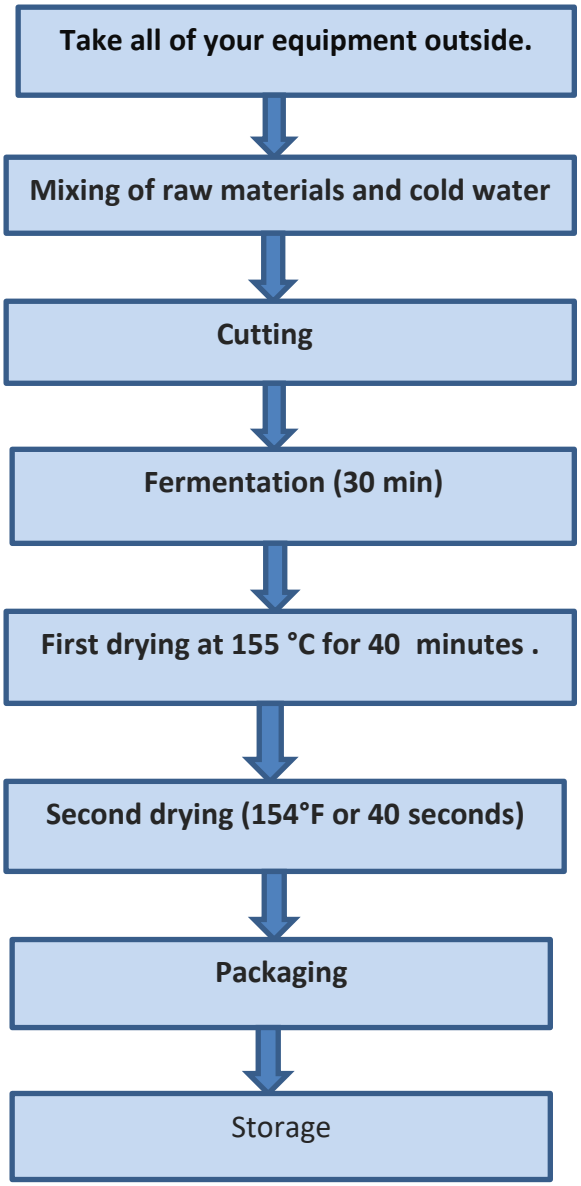


Figure 3 shows the manufacturing process for special toast.

**Making of Butter-Sugar Toast**

**Ingredients**

Wheat Flour
Salt chloride
Yeast
Food-Grade Vegetable Oil
Sugar
Butter Taste

Equipment’s

Assessing Balance
Chiller Device
The bucket
Mold Cutting Equipment
Oven
Tray
packaging machinery

## 2.1 Two Saection: Orange and lychee drinks, Prome Amras, and lollipops.

### Production Methods for Prome Amras

Ingredients

Citrus Ascorbic Acid (E-202)
Supplement A
Beta-Carotene
Mango flavoring for food.
Pulled mango
Treating Water
The refined sugar
Citrus Acid (E-330)
Citrate of sodium (E-Buffering Agent)
Sodium Benzoate (E-211)

Figure-4 :Prome Amras

Equipment

Mango-pulping device
Blending Tank
A homogenizer for juice
Pasteurizer for juice
juice-filing device
Labeling device
Warmer Device
Wrapping Device

**Process Flow Diagram for Manufacturing**

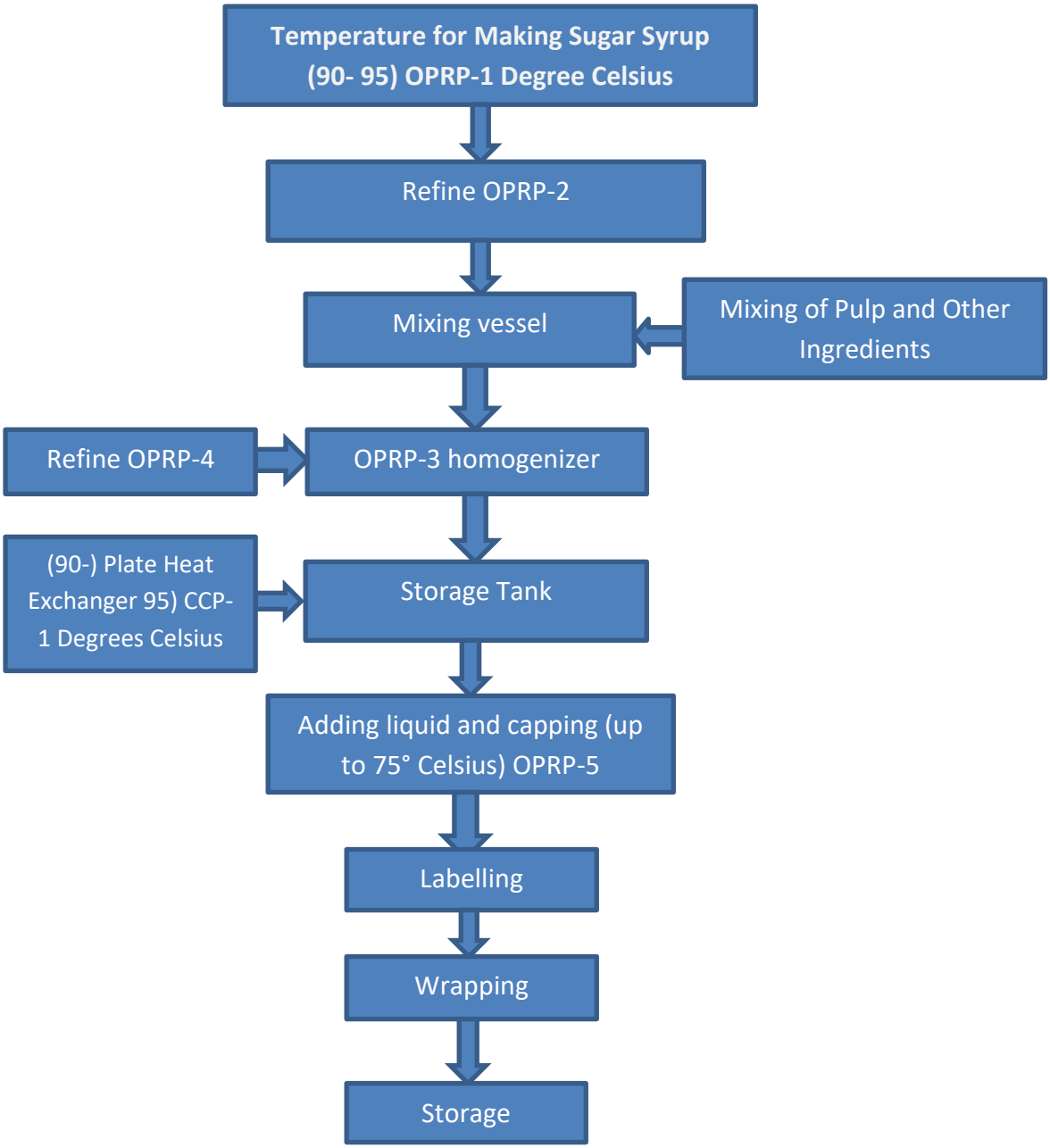


**Figure 5 shows the production flow for Prome AamRas Manufacturing.**

**Ingredients used in the production of orange drinks**

**Ingredients**

Refined sugar.
Treated water
Citric acid (E-300)
Orange flavoring for food
Orange Emulsion
Chloride of sodium
Caffeine Sorbet (E-202)
Salt of Benzoate (E-211)
Cellulose carboxymethyl (E-466)


Figure- 6 Orange Drinks

Equipment's

Drinks Pasteurizer
Filling & Selling Machine
Steel Dish
Syrup Vessel
Mixture Tank

**Process Flow Diagram for Manufacturing**

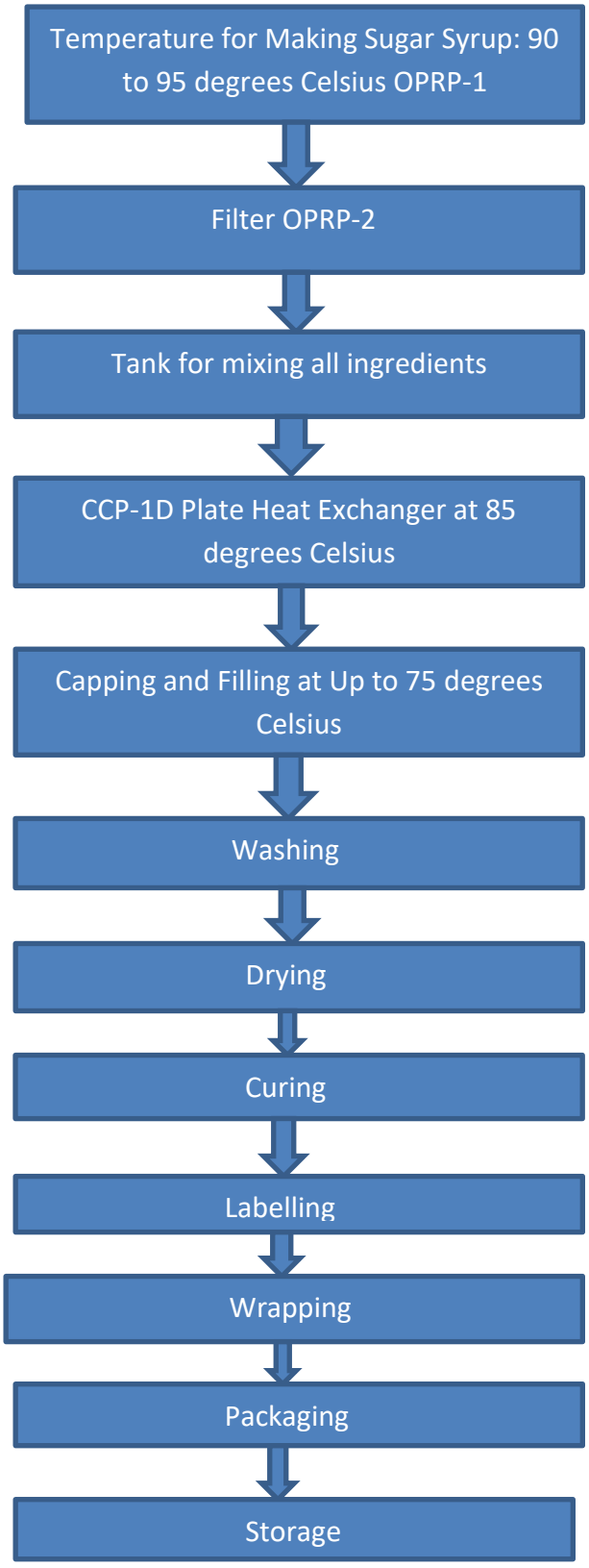


**Figure 7 shows the manufacturing process for mango drinks**

**Production Methods for Lychee Drinks**

Figure-8 Lychee

## Ingredients

Refined Sugar
Citric Acid (E-300)
Treated Water
Cellulose Carboxymethyl (E-466)
E-211) sodium benzoate
Caffeine Sorbet (E-202)
Chloride of sodium
Lychee Food Grade Flavor

Equipments

Syrup Vessel
Mixture Tank
Drink Pasteurizer
Filling and Selling Machine Figure8Lychee Drinks
Steel Dish

**Process Flow Diagram for Manufacturing**

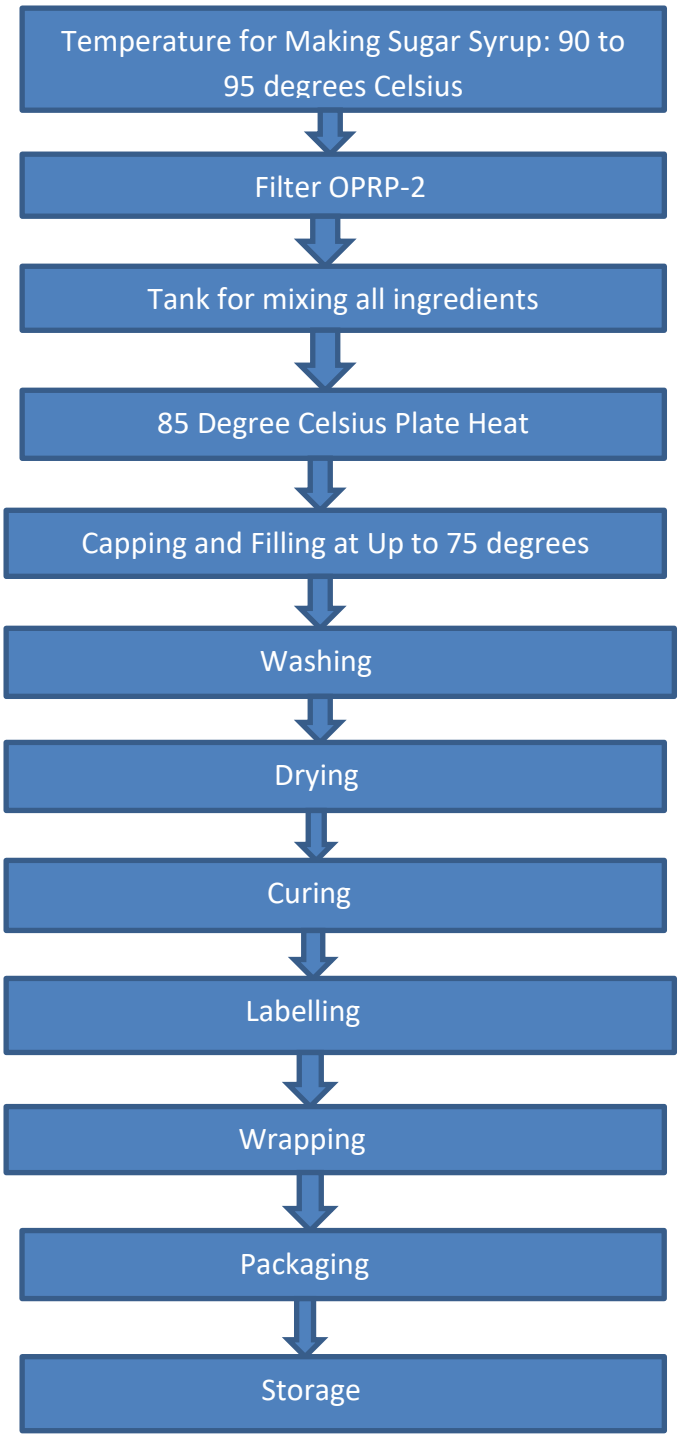


**Figure 9 shows the manufacturing process for lychee beverages**

**Lollipop Manufacturing Process**

## Ingredients

Citric acid
Liquid glucose
Food-grade color and flavor
Sugar


Figure-10 Lollipop

## Equipment's

Frying pan
Tray
Mixing Bucket
Burning Machine
Measuring Balance

**Process Flow Diagram for Manufacturing**

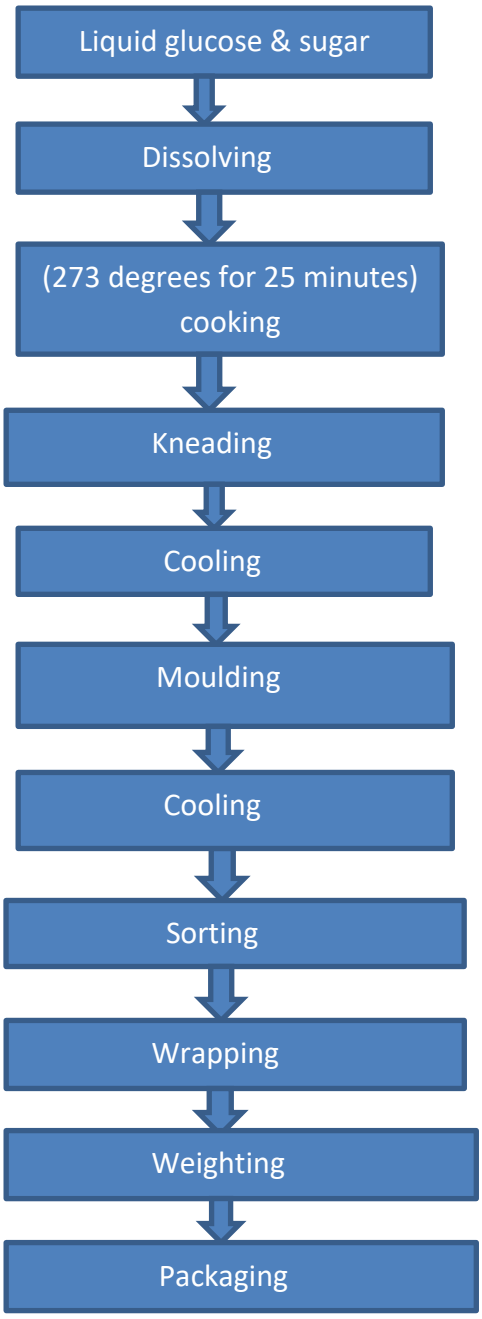


**Figure 11 shows a flow chart for the production of lollipops.**

**3.1 Three Section**: Fried dal, fried peas, and hot puffed rice are called chanachur.

**Making of Hot Puffed Rice**.

Ingredients

Oil,
Puffed Rice,
Peas, nuts, pulses,
Cedar shavings,
Mustard oil,
Citric acid,
And food-grade lemon color.


Figure12: Warm Puffed Rice

Equipment's

Measuring balances ,
Bowl,
Mixer,
Tray,
Spade, Figure 11: Warm Puffed Rice
Bucket,
Date-coding machine,
Filling machine,
And an auto-sealing machine.

**Process Flow Diagram for Manufacturing**

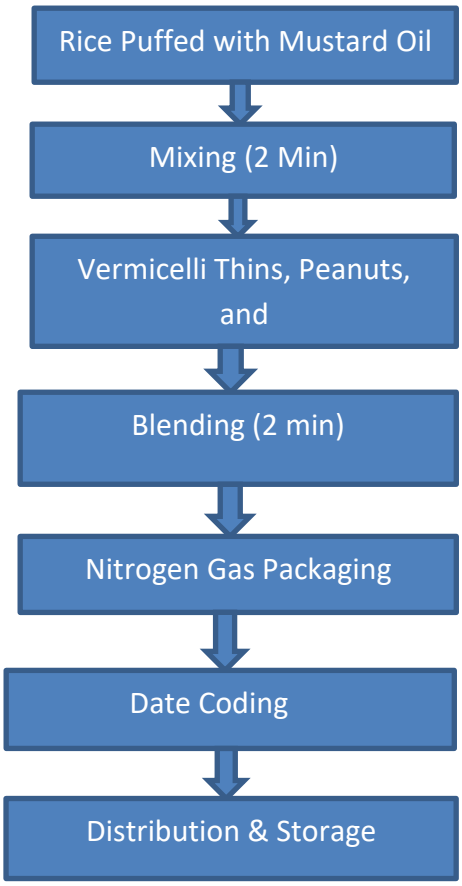


**Figure 13 shows the manufacturing process for hot puffed rice and how it is distributed**.

**Making of Fried Peas**

## Ingredients

Peas,
Vegetable oil,
Salt,
Spices,
And seasoning,
in a pea-green color.


Fingure-14: Fried Peas

## Equipment's

Weighing scale,
Frying pan,
Strainer,
Bowls,
Mixer Machine,
Tray,
Spade,
Bucket,
Date-coding machine,
Intelligent automatic machine.

**Process Flow Diagram for Manufacturing**

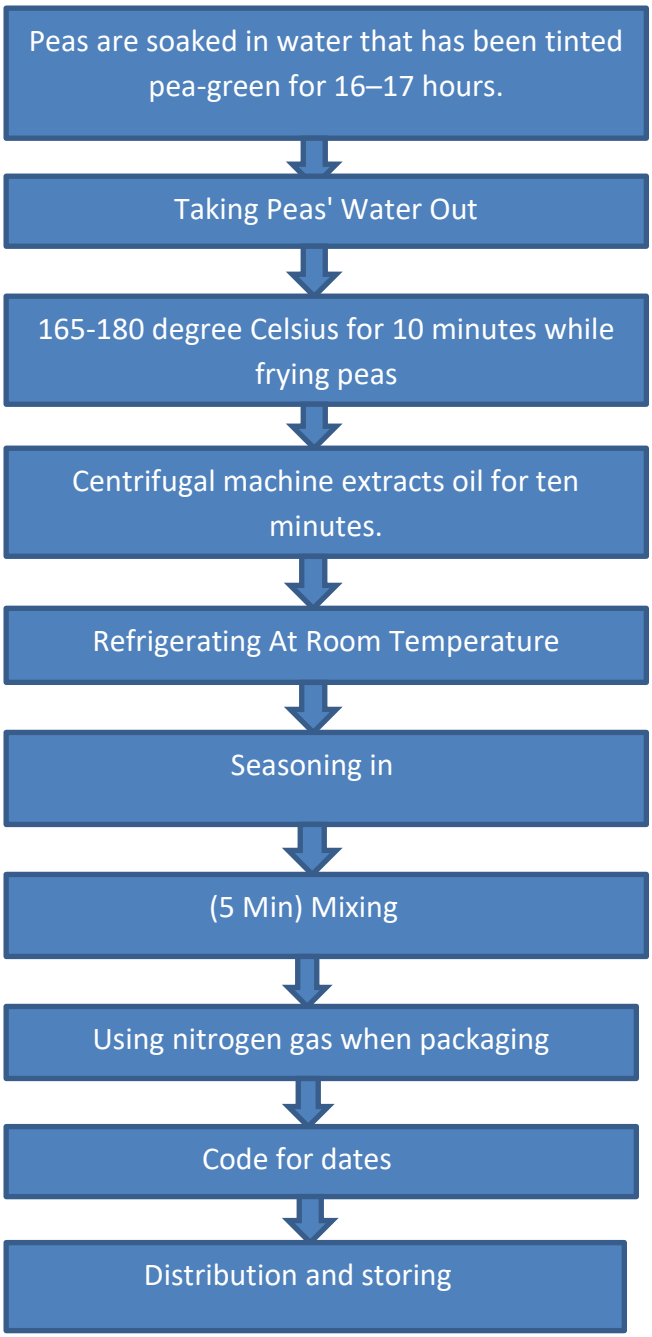


**Figure 15: Process Flow Diagram for the Production of Fried Peas**

**Fried Dal Production Process**

**Ingredients:**

Spices,
Seasoning,
Rock salt,
Edible vegetable oil,
Pulse (mug dal),


Figure 16 Dal Vajha

Equipment's

Measuring balance,
Frying tank,
Strainer,
Basket,
Bowls,
Mixer,
Tray,
Spade,
Bucket,
Date-coding machine,
Intelligent automatic machine,

**Process Flow Diagram for Manufacturing**

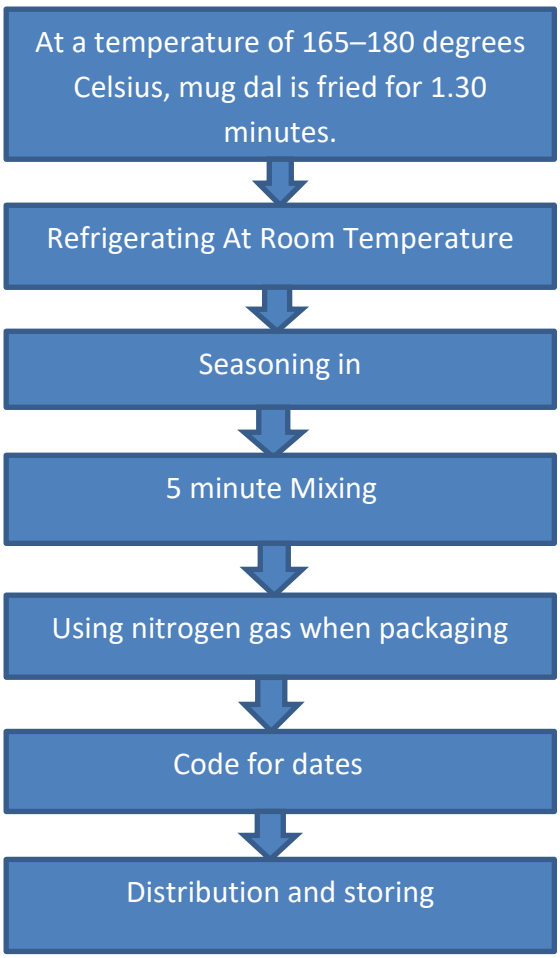


**Figure17 A flowchart of the process used to make fried dal**

**Making of Hot Chanachur**

**Ingredients**

Edible Oil,
Groundnuts,
Chili Powder,
Rice, peas, beans, and granules,
Salt,
The sodium bi,
The word carbonate (E-500),
Mono-Sodium Glutamate (E-621
Citrus Acid (E-330),
Cardamom,cumin,cinnamon, and "clove
Powder made of turmeric.
Skinny vermicelli
Vermicelli in fat.
Papri' and'seasoning'


Figure 18 Hot Chanachur

**Equipment's:**

Balance Measurement.
Bowls,
Mixer
Tray,
Spade,
Bucket,
Date-coding,
An intelligent automatic machine,
And an auto stove.

**Process Flow Diagram for Manufacturing**

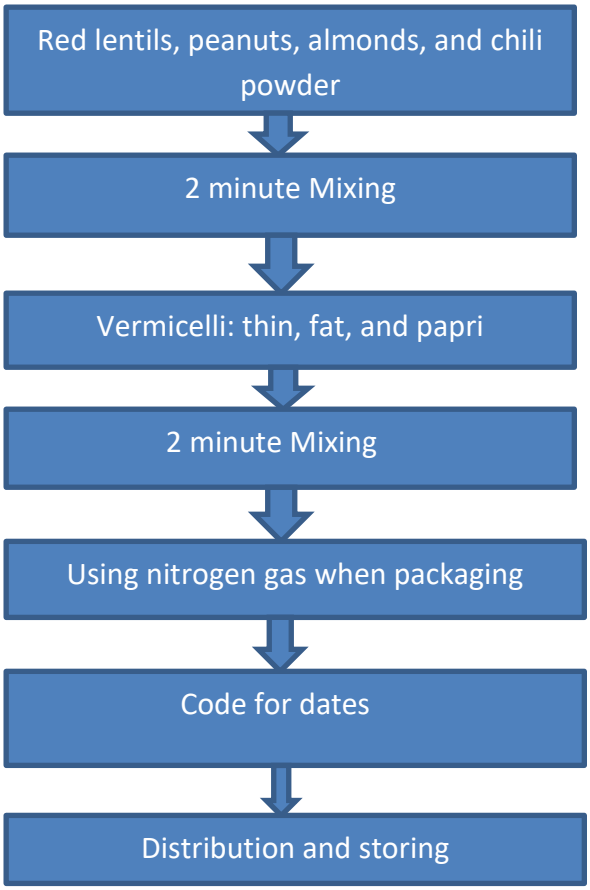


**Figure 19 Flowchart for the Hot Chanachur Manufacturing Process**

## 4.1 **Section four**

# Central Lab

**Inspection of the quality of snacks, mustard oil, spices, raw materials, and packaging materials.**

### Test for moisture:

In the moisture analyzer, place 5 grams of the sample. At that point, the analyzer should be started, and the user should hold tight for 5 minutes. showing the results on the screen after the moisture analyzer.

**Common Moisture of**:

1. Powdered peas ( Bison) :10%
2. Snacks Products : 2%
3. The seeds of basil :10%
4. Dal in Green Mugs :12%
5. Peas in green : 2%
6. Dried Chili :10%
7. Leaf Bay :10%
8. Spices :Below 6% etc

**Testing Mustard Oil for Free Fatty Acids:**

### Necessary apparatuses:

1. Burette.
2. Warm Plate Stirrer.
3. Dropper.
4. Measuring Cylinder.
5. Pipette.
6. Conical Flask.

**Chemicals Required**:

1. SolnNaOH at 0.225%.
2. Indicator for phenolphthalein at 0.5%.
3. Alcohol, ethyl.

**20 ml of mustard oil as a sample**

**Procedure:**

1. Using a pipette, 20 ml of mustard oil were used for the test
2. Using a measuring cylinder, pour 50ml of ethanol into the flagon.
3. Fill the hip flask with (3–4) drops of phenolphthalein indicator.
4. The conical Flask is heated using a heating plate stirrer at 480°C until bubbles start to appear.
5. Tirate with a NaOH solution until you notice a color change (you'll notice pink).
6. Figure out the titration value.

$$\boldsymbol{Calculation}\ \frac{\text{Burette Reading} \times \text{Conversion} \times \text{Normality}}{\text{Sample Weight}}$$

| Standard Acidity | Conversion Factor |
|---|---|
| Mustard Oil : 3% | Mustard Oil : 33.8 |
| Palm Oil :05% | Palm : 25.6 |

**Mustard Oil Test Done in the Cold:**

For 24 hours, mustard oil keeps at - 50C. After that, if the condition of the oil remains unchanged from before, the oil quality will remain excellent. However, if the oil condition does not remain the same as it was before storage, the oil quality will be set as poor and unsuitable for use.

**Raw Materials verification criteria**

To test for gluten, mix 25 grams of flour with water to make a batter. After preparing, the mixture is crushed in water and used to wash the batter. When all the starch has been removed, a bundle of gluten is visible; at that point, the gluten is weighed, and the result is computed.

$$\boldsymbol{alculation} = \frac{\textbf{Weight of the gluten}}{\textbf{weight of flour}} \times \mathbf{100}$$

Ancor:
Checks for moisture, weight, and insecticides are made.
**Peanut**
visual examination.
**Isubgul:**
Checking for odors, examining dust, and classifying items based on quality.
**Peas, chick**:
Checking the moisture, the hardness, and the presence of insect damage.
Mung bean, cilantro, and cumin:
Checking for dust, examining insecticides, and classifying them based on quality
**Peas:**
Visual inspection.
**Bay Leafs:**
Inspecting the size, size, and condition of the leaves.
**Mustard Oil:**
Temperature checking.

**Checking criteria for packaging materials:**

**Dimensions of Carton:**
The measurements of length, weight, and height.
**Testing a carton's weight in grams per square meter:**
Testing is done on three different carton types (3 ply, 5 ply, and 7 ply). The following table lists the typical GSM value for these types of cartons:

3ply: 500-600 g/m2
5ply: 600-700 g/m
7ply: 800-900 g/m2

**Procedure:**

1. Decide which area of the container you want to focus on.
2. By using a GSM analyzer, cut off that particular area.
3. Estimate the weight of the cutting piece by adding 100 pounds to the weight value.
4. Determine the GSM esteem.

**Carton burst-strength test:**

Testing is done on three different carton types (3 ply, 5 ply, and 7 ply). The following table lists the typical bursting strength for these types of cartons:

3ply: 5kg f/cm2
5ply: 6.5kg f/cm2
7ply: 6.5kg f/cm2

**Procedure:**
The container is placed in the analyzer for blasting power after which gaseous pressure is restricted on the container to 25 psi. The value is then scrutinized.

**Measurements for aluminum foil:**
Measurements of length, width, and thickness.
**Paper Supply:**
Size measurements including length, width, height, and GSM.
**Paper Label:**
Verifying the length and width

**Testing for Microbes and Their Identification from:**

1. Spices.
2. Pickles.

Yeast and mold can have an impact on spices and snack items.
Salmonella, yeast, and mold are potential contaminants in pickles.

Salmonella Shigella Agar is used to identify Salmonella, while Sabouraud Dextrose Agar is used to identify Yeast and Mold during the preparation of the media.

**Identification of Yeast & Mold by SDA Agar:**

**Apparel that is necessary:**

1. Incubator.
2. Laminar air flow.
3. Micro pipette.
4. Spreader.
5. Autoclave.
6. Petri dish.
7. Inoculation loop.
8. Spatula.
9. Pincers.
10. Measuring flask.
11. Hot-water bath.
12. Test tube.
13. Conical flask.
14. Beaker.
15. Measuring balance

Procedure

1. In a cone-shaped jar, combine 16.25 g of Savored Dextrose Agar and 250 ml of refined water (or 18.90 g of SS Agar if the need should arise)
2. By using aluminum foil paper, the tapered cup's mouth is sealed.
3. To properly break up the arrangement, submerge the tapered cup in a boiling water shower (45–600C).
4.Then, for 30 to 45 minutes, autoclave all of the devices at 1210 C and 15 psi.
5. Put all remaining mechanical assemblies in a laminar wind current after autoclaving, with the exception of a cone-shaped jar. In the hot air shower is a carafe with a cone shape.
6.Each powerful illustration was used as a powdered structure.
7. Put 10 g. 35–40 ml of media (pure) and 35–40 ml of test were added to the Petri dish.
8.Place the Petri dish in the hatchery for 72–120 hours at a temperature of 25–270°C and seal the top. (If an occurrence of SS Agar's media brooding occurs, the temperature and time range is 35-370C for 24-72 hours.) 9. Make a count of all microbes, including yeast and mold.

**5.1 Saction Five**
**Export and Certification:**

**Export:**

Prome Food Products Ltd. manufactures and trades food products in numerous countries around the world as a fully send out arranged company. It operates its own business with a fully functional setup in Saudi Arabia and trades its food products in the UAE, Bahrain, Qatar, Oman, Kuwait, Italy, the United Kingdom, Malaysia (4 merchants in Malaysia: KL, Penang, Malacca, and Jahurbaru), Singapore, Jordan, and other countries. Prome has been gaining popularity for the past 12 years, and they are expanding their market throughout the world. Its various divisions (Export, Commercial, Accounts, Marketing, Admin &HR, Purchase, Civil Service, and Finance) are overseen by highly qualified staff.

**Certification:**

BSTI certification is held by Prome Agro Food Products Ltd

**Conclusion:**

It was a great opportunity and educational experience for me to complete my internship at "Prome Agro Food." "Prome Agro Food" is the name of the food sector in Bangladesh that is expanding the fastest right now. Working with them is enjoyable for me. I was able to expand my knowledge and experience during this internship. During my time there, I gained knowledge of the corporate culture and conduct of a significant manufacturer of consumer goods. My professional network could also grow thanks to this internship.

Finally, I want to express my gratitude to Daffodil International University's Department of Nutrition and Food Engineering for giving me the chance to learn and grow.

# I appreciate you, Prome Agro Food Ltd.