



Daffodil
International
University

An internship Report
On
Production, Quality Control and Quality Assurance of Food & Beverage
At
Affix consumer products Ltd.

Supervised by

Effat Ara Jahan

Lecturer (senior scale)

Department of Nutrition and Food Engineering

Daffodil International University

Submitted by

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Department of Nutrition and Food Engineering

Daffodil International University

Date of Submission: 15-12-2019

LETTER OF TRANSMITTAL

Date: 15-12-2019

Prof. Dr. Bellal Hossain
Head
Department of Nutrition and Food Engineering
Faculty of Allied Health sciences
Daffodil International University

Subject: Submission of internship report.

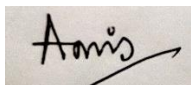
Dear Sir,

It is a great pleasure for me to have the opportunity to submit Internship report as a Part of the Nutrition and Food Engineering (NFE) program or department.

I am prepared this report based on the acquired taste knowledge during my internship period In Affix consumer products ltd. It is great achievement to work under your active supervision. This Report is based on, “Studies on the production and quality control of Food and Beverage at Affix consumer products Ltd. Bhaluka. Maymonsing. I have got the opportunity to work in Affix consumer products Ltd. In “Quality Control and Production Department” for 60 days, under the supervision Tarique Md.Zahid Hasan, General Manager (operation).

Firstly I have achieved knowledge about the organizational culture of a prominent product producing organization of the industry. Secondly, the company give me the opportunity to develop a network with the corporate culture.

I therefore, would like to place this report to your judgment and suggestion. Your kind advice will encourage me to perform better planning in future.



Sincerely Yours,
K.M.Anisur Rahman
ID: 163-34-577
Department of Nutrition and Food Engineering
Faculty of Allied Health Science
Daffodil International University

LETTER OF AUTHORIZATION

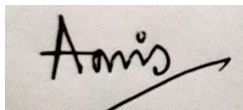
Date: 15-12-2019

Prof. Dr. Bellal Hossain
Head
Department of Nutrition and Food Engineering
Faculty of Allied Health Science
Daffodil International University

Subject: Declaration regarding the validity of the internship report.

Dear Sir,

This internship report intend Knowledge and extent the practice of **Studies on Production, Quality Control and Quality Assurance of Food and Beverages** at Affix consumer products Ltd. was submitted to the Department of Nutrition and Food Engineering, Faculty of Allied Health Science, Daffodil International University, Dhaka, Bangladesh. This study was fully concerned with the department and faculty members.



Sincerely yours,
K.M. Anisur rahman
ID: 163-34-577
Department of Nutrition & Food Engineering
Faculty Allied Health Science
Daffodil International University

CIRTIIFICATION OF APPROVAL

I am submit to certify of the my internship report on Production, Quality Control and Quality Assurance of Food and Beverage, conducted by K.M.Anisur Rahman, respectively ID No: 163-34-577 of the department of Nutrition and Food Engineering has been approved for presentation and defense/viva-voice.

I am pleased to here by certify that the data and finding presented in the report are the authentic work of K.M.Anisur Rahman. I strongly recommended the report presented by K.M.Anisur Rahman for further academic recommendations and defense/viva-voice. K.M.Anisur Rahman bears a strong moral character and a very pleasant personality. It has indeed a great pleasure working with him. I wish him all success in life.



Prof.dr.md.Bellal Hossain

Head

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Daffodil international university



Effat Ara jahan

Lecturer

Department of Nutrition & Food Engineering
Faculty of Allied Health Science
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ACKNOWLEDGEMENT

In the complete of this report, I would like to acknowledge the encouragement and assistance give to me by a number of people. At first, I would like to express my gratitude to almighty Allah for enabling me the strength and opportunity to complete the report in the schedule times successfully. I am taking this privilege to deliver my gratefulness to each and every people who are involved with me in every phase of my lives.

I am grateful to my parents without whom I cannot be here. Without the support of my parents, I could not be able to achieve my objectives and goals.

My Deep gratitude and sincere thanks to the honorable Head sir, Nutrition and Food Engineering department **Professor Dr. Bellal Hossain** for this kind cooperation and to accept this Degree. I am encouragement taking this privilege to deliver my gratefulness to each and every people who are involved with me in every phase of my lives.

I am deeply indebted to my Supervisor **Effat Ara Jahan, Lecturer**, Department of Nutrition & Food Engineering, Daffodil International University for his whole-hearted supervision during my organizational attachment period. I am very grateful to **Tarique Md.Zahid Hasan** of Affix consumer products ltd. For giving us permission to carry out this internship in his company. I am also grateful to **Tarique Md.Zahid Hasan (GM,operation)** as my organizational supervisor to conduct. It would have been very difficult to prepare this report up to this mark without their guidance.

I would like to express my warmest thanks to **NFE Faculty members** for their countless inspiration and encouragement during the student life.

Finally I wish to express immense gratitude & humbly convey my heart- felt respect to Managing Director.

Tables of Content

Content	Page
Letter of Transmittal	i
Letter of Authorization	ii
Certificates of Approval	iii
Acknowledgement	iv
Table of Content	v-vi
Chapter no-01: History of Company	1-4
Introduction	1
Aim of The Training	2
Description of The Organization	3
About Affix consumer products ltd	4
Vision of Affix consumer products ltd:	4
Mission of Affix consumer products ltd	4
Values of Affix consumer products:	4
Chapter no-02: Different types of Foods and Beverage	5-16
Stick noodles	5-7
Tetul Chutney	8-9
Mongo drink	10
Tasty saline	11
Mustard oil	12
Macaroni process	13
Product of detergent	14

Product of frying peas	15-16
Chapter no-03: Proximate Analysis or Quality control lab Test	17-20
Determination of Beverage Acidity	17
Determination of Beverage P^H	18
Determination of Beverage %Brix	18
Organoleptic Test (Taste, Odor, Appearance)	19
Determination of Net Content.	19
Blown Bottle Performance Check	20
Determination of Gas Volume (GV).	20
Chapter no.4:	21-23
Procurement system	21
Lab work	22-23
Chapter no.5:Microbiological test	24-29
Total bacterial count	24
Total Yeast, mold count	25
Total Coliform count.	26
Total Coli form count.	27
Total Yeast & Mold count.	28
flour gluten test	29
Chapter no.6	30-31
ETP plant	30
conclusion	31

Chapter 1

INTRODUCTION

At 32nd December out of 09 semesters in three year Bachelor of Science in Nutrition and Food Engineering (Hon's), I got an opportunity to work at Affix consumer products Ltd. Bangladesh the part of my internship. The duration of my internship was from 20th July 2019 to 20th September 2019. Affix consumer products is the middle class food company in the country. Affix consumer products has many types of department. The departments are – HR & Admin, Quality Control, R & D, Production, Electrical, Mechanical, Store, Distribution, Accounts, Vat, Resource, Hygiene etc. My concern was **Quality Control, Quality Assurance Department & Production Department** which encompassed the following activities:

- Maintain all quality control parameter as per specific. Everything being equivalent
- Ensure nature of age. Of things
- Knowledge on thing costing. Every movement
- To prepare and to submit fundamental reports required by the organization.
- Have to submit report to control every day for age use, costing, quality, etc.
- To make fundamental age game plan as per the schedule gave by the creation office.

AIM OF THE TRAINING

Aim of the Training:

Section level positions allow to me to understanding speculation with practical and further fill in as a fleeting work pool for those affiliation that have made plans to check out the impermanent activity program. The workplace full fills its vital preparing understudies for tremendous master and managerial circumstances in all of the zones. Noteworthy master improvement subjects and workshops are discussed consistently.

The internship...

- Provides to me with a sensible or authentic inclusion with the all-inclusive community, private or not-revenue driven affiliations.
- Enables to me to make noteworthy open association capacities which can't be instructed in the homeroom.
- These experiences change from managing unprecedented exercises for the interning office to getting some answers concerning the human motivation process in a staggering affiliation.
- Enables to me to consider speculative considerations achieved in the homeroom inside the universe of work regarding open association experiences.
- Provides an understudy with contribution with a certified open, private or not-revenue driven association before entering the movement feature. For instance, experience fabricates understudies' movement conceivable outcomes, yet moreover supports what is ordinary in regards to capable direct.
- Permits an understudy to apply the particular capacities achieved in the examination lobby to veritable open, private or not-for-benefit legitimate issues.

DESCRIPTION OF THE ORGANIZATION

About DOM-INNNO Group:

DOM-INNO GORUP of the greatest Bangladeshi land engineer association. The organization under this total consolidate Land properties, engineer, sustenance and drink, lodging properties, printing and packaging, pharmaceuticals, customer things, etc.

Dom-inno Group was set up during the 2002s by industrialist Abdus Salam as a land properties business, before moving into sustenance and drink and various zones of business. It has gone up against examination for using kid workers. The legacy of Dom-inno pack is over 17 years old and during the time Dom-Inno has set up itself as the overflowing with sureness and much loved mechanical gathering of Bangladesh. Dom-inno Group is maybe the best total in Bangladesh. It includes 7 significant stresses with different activities and different things. Dom-inno Group pushed its undertaking as a little land more than 17 years earlier. Starting now and into the foreseeable future it has been progressing with colossal pace in the Bangladesh. A colossal number of people are used by the social occasion and contemplated as people from the Dom-inno family. The non-advantage concerns are similarly drawn in with proceeding with progress of the country and for social welfare. Profile Architects & Engineers Ltd.

- DOM-INNO Concrete Ltd.
- LEON Pharmaceuticals Ltd.
- AFFIX Consumer Products Ltd.
- DOM-INNO Trading Limited.
- Thema Fila Limited.

About Affix consumer products ltd:

Append shopper items Ltd. A unit of Dom-Inno Group began its activity in the year 2012. Append makes a wide scope of Snacks and Beverage for both National and International market the same. Join customer is a task worth \$ 10 million and is financed by the parental organization Dom-Inno Group. There are different kinds of drink. Following the presentation of the brand it turned out to be extremely prominent among its shopper in light of the high caliber and escalated appropriation in each niche and corner of the nation.

Vision of Affix consumer products ltd:

Having the nature of the items, turning into the most nourishment and drink organization of Bangladesh

Mission of Affix consumer products ltd:

- Producing high caliber of items.
- To providing the top notch items.
- To circulate the zero imperfection items.
- Always apply high innovation to create top notch items.
- Brings quality throughout everyday life.
- Work for social welfare.

Values of Affix consumer products:

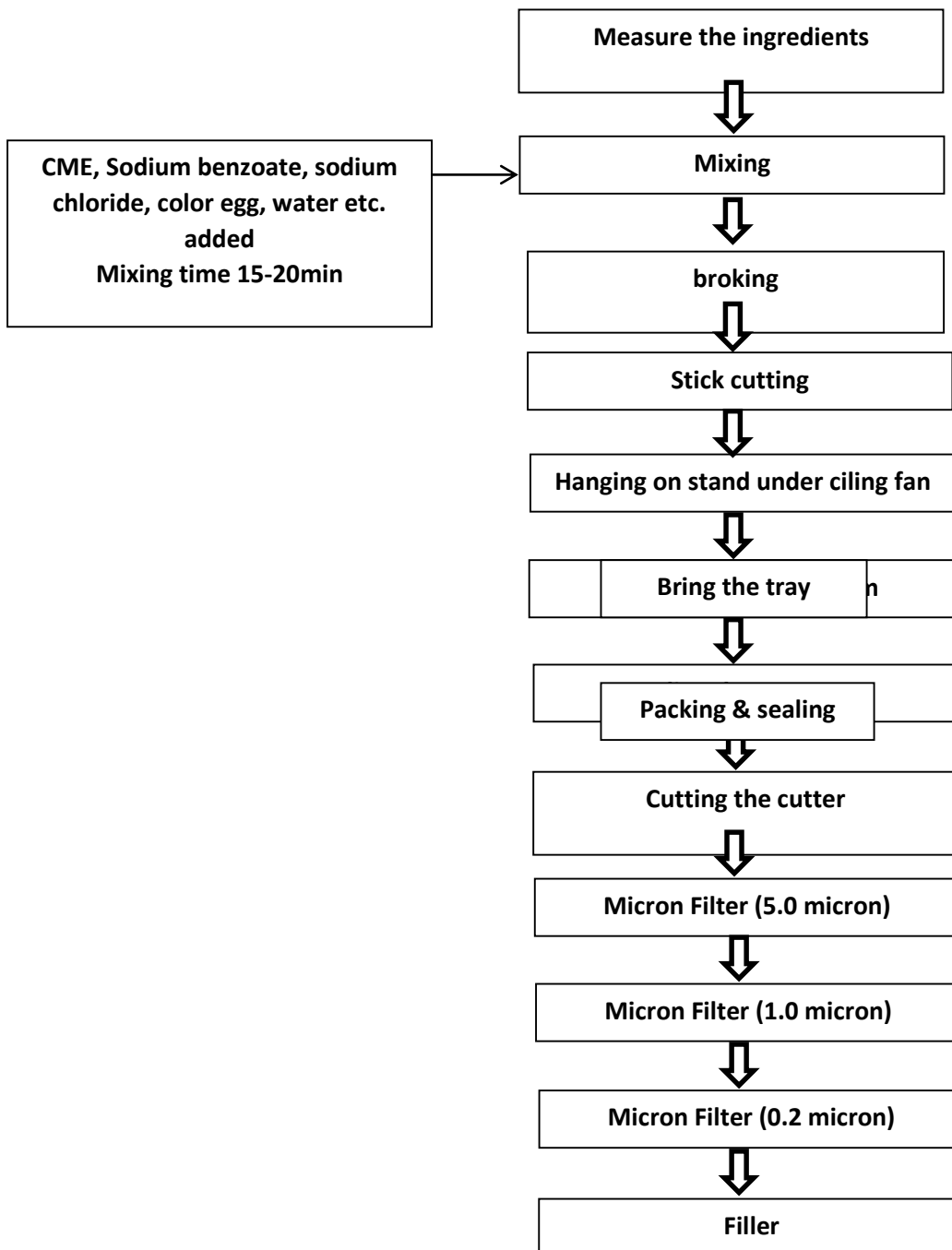
- Innovation
- Teamwork
- Integrity
- Customer focus
- Trust and Respect
- High quality
- Customer satisfaction

Chapter 2

WORK DESCRIPTION IN DETAILS

Stick noodles

Flowchart of Stick noodles



About of Stick noodles

Stick noodles are also very popular noodles in this country. Most of all company produced stick noodles. Stick noodles healthy and testy food. Firstly choiseable food are Bangladeshi children's and adults peoples.

1. Chemicals / equipment's required.

- Carboxy methyl cellulose.
- Sodium benzoate.
- Sodium chloride.
- Color
- Spices

ii. Equipment

- Moller machine.
- Drying exust fan
- Hand sealer

ii. Test procedure:

- Clean the glassware & other materials with detergent & distil water.
- Collect the water sample.
- Collect the raw materials
- Clean the room

PH test

Required chemicals/equipment

1. No chemical is used.
2. pH meter

Test procedure

1. Take the sample in a beaker as a sample.
2. Deep the pH meter into it.
3. Collect the reading.
4. pH meter reading is the result

Result:

PH are 8 before cooking.

Noodles spices

1. Chili powder
2. Tasting salt
3. Tamarind powder
4. Cumin powder
5. Aniseed powder
6. Coriander powder
7. Nutmeg powder
8. Normal salt

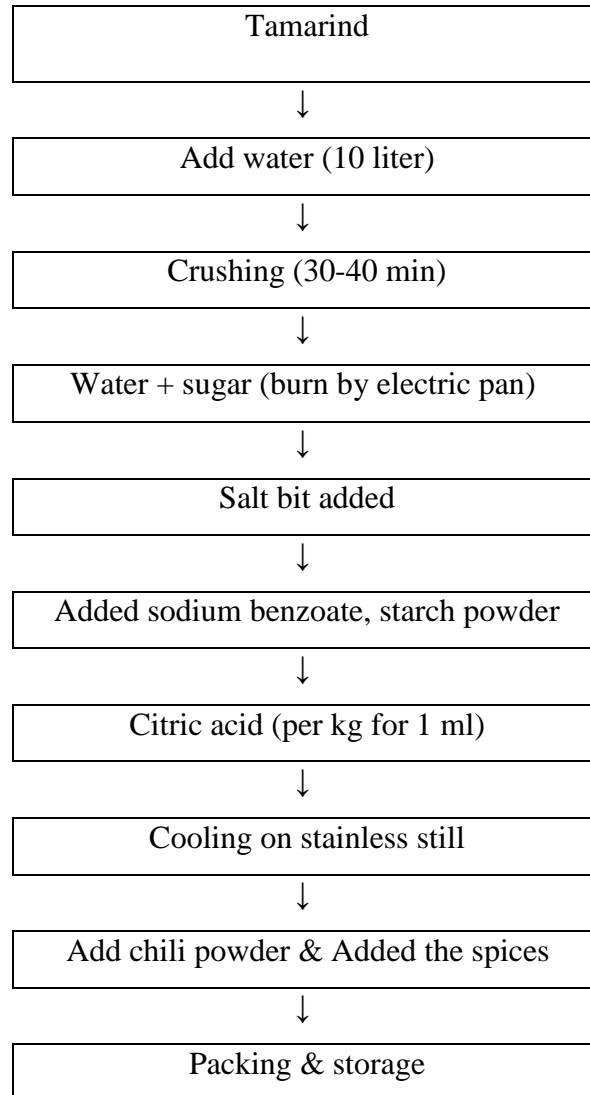


Fig: Affix egg noodles

TETUL CHUTNEY processing plant:

Raw materials: Sugar, water, Citric acid. Spicy. Chili powder.

Flow chart of chutney processing



Packaging section on chutney

1 pcs chutney in hopper by jar are cut the 12 single pack and weight of 236 gm.

One carry pack to coding machine .coding machine need two people.

One placed the single pack in conveyor belt and one receiving the pack after coding.

Vertical temperature control: 118

Horizontal temperature control: 120-127

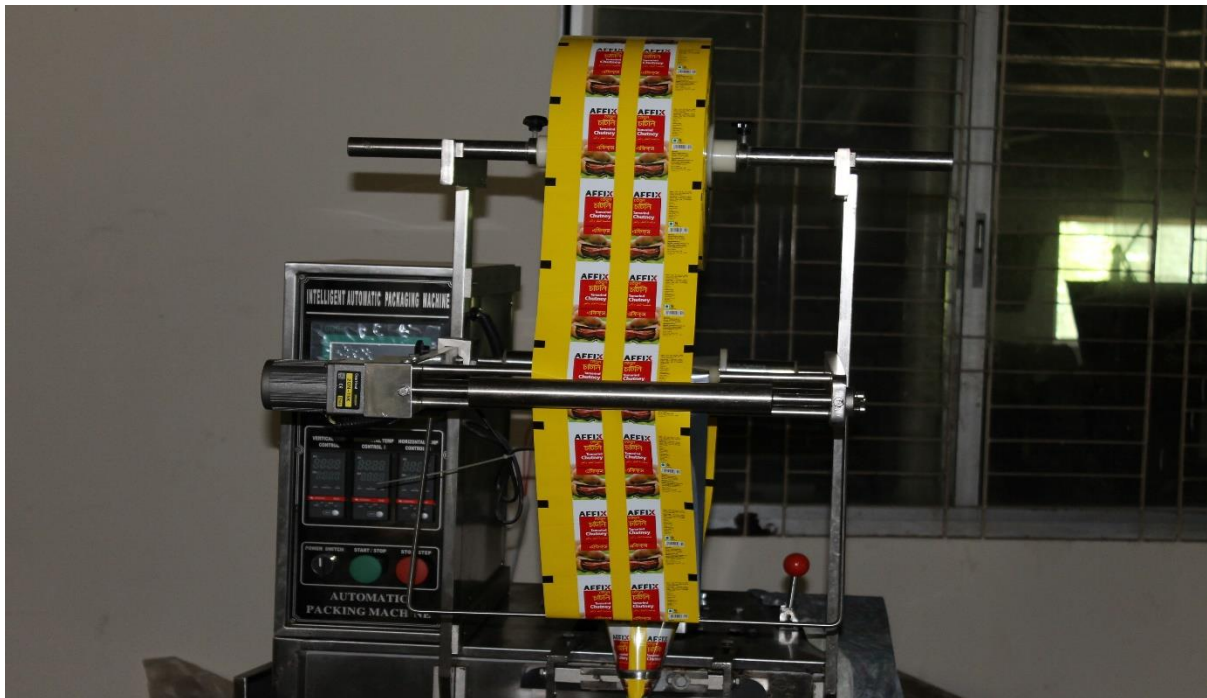


Fig : packing on chutney

Mango drinks process

1-Mixing: At first purifier the water process (ground water filtration for removing water room temperature)

2-Ingredients: Mango pulp. Water. Sugar. Salt. Citric acid. Beta carotene (vitamin A).flavor (mango)

3-Mixer: 800 rpm (rotation per minute) at room temperature.
 Flavor add at last steps

4-Pestuerazation: Pasteurization on pasteurizer tank.
 Tempareture-85`c at (15 minute)

5-Filing

6-Cooling by water take into backed.

7-Then cooling by room temperature.

8-Lebelling

9-Sealing

M

Shelf Life (PET)

Affix mango drinks	4 months
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Shelf Life (CAN)

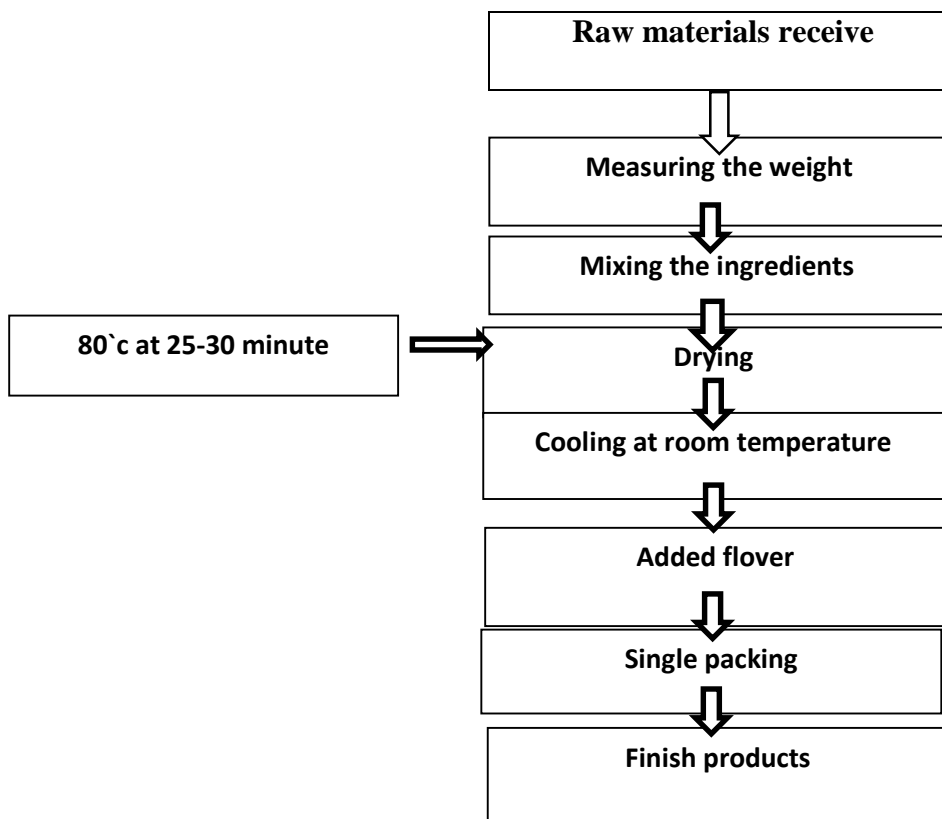
Affix mango drinks	9 months
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Tests of CSD

1. Gas volume
2. pH
3. Acidity
4. Torque
5. Brix
6. SST

Affix tasty saline

Flowchart of Tasty saline

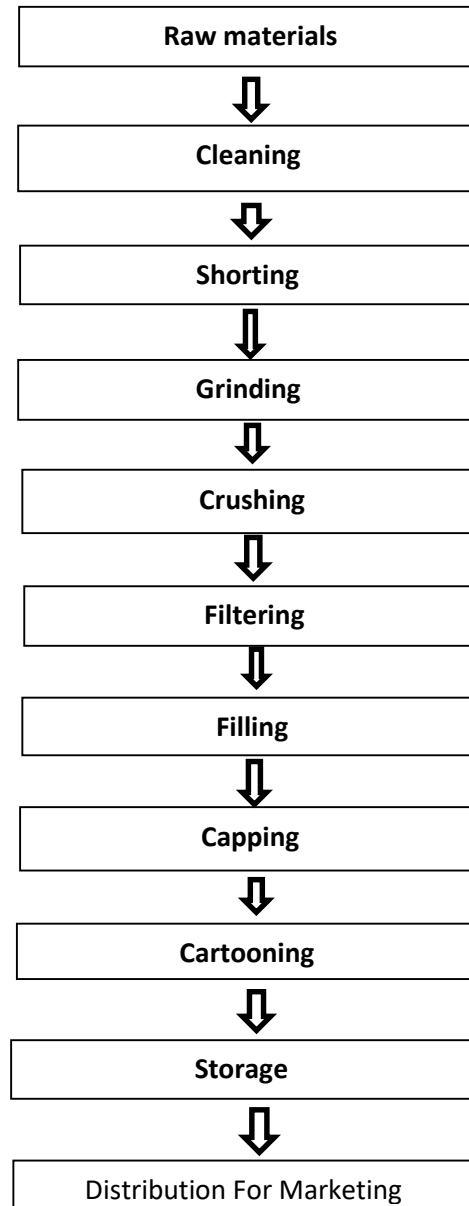


Saline humidity – 72

Tasty saline Raw materials:

1. Sugar (SUCROSE)
2. Sodium chloride
3. Dextrose
4. Sodium citrate
5. Potassium
6. Orange flavor

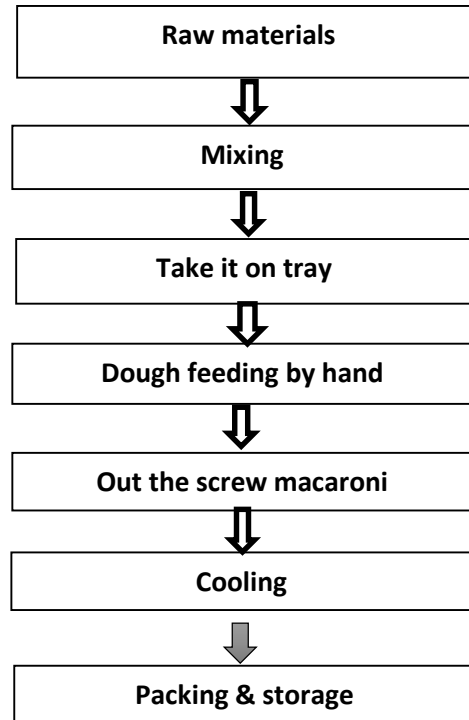
Flowchart of Affix Mustard Oil



Mustard oil humidity -0.8% - 0.9%

Main ingredients – sunflower

Flowchart of Macaroni



Ingredients of macaroni:

- 1- Flour
- 2- Salt water
- 3- CMC
- 4- Color water

Screw macaroni sized 1inc.

Macaroni made by single screw.

Dough humidity- 60-70`c

Macaroni machine are two types: 1-screw macaroni. 2-jhinuk macaroni.

Finished products- >5
Dry 65-70`c at 6 hour by electric dryer

Function of macaroni machine:

1. Tray group- 2 inc
2. Cutter RPM- 1500
3. Shaped speed- 35 RPM
4. Capacity 50kg per hour

Product of Detergent

Ingredient:

1. Soda
2. Crushing salt
3. Sodium sulphate
4. Lapsa
5. SLS
6. Shampoo
7. STPP
8. TSP
9. Tinafall (yellow color)
10. Tinafall dime
11. Co₂co₃
12. Dolamide
13. Red sperkel
14. Britner
15. Flavor

Product of frying peas

- At first select the peas
- Put on dram into water
- Take on mash net
- Take onsertrifuser hopper (15-20 kg at 5-7 minute)
- Take on tray
- Take on baked (neer to oven)
- Take on heated oil
- Frying(5-7 min it depend on heat oil)
- Take on net on the stand for excess heated
- Oil separation
- Take on stillness still tray
- Take on sentrifuse for excess oil separation
- Take to tray for mixing spices
- Bring the single pack

Fried peas packing section

China vertical single packing machine:

1. Hopper capacity- 40 kg
2. Place in hopper
3. Peas take balance on hopper bati (20g)
4. Package speed (40-52 per min)
5. Air added by air compressor (item be maintained by air regulator)
6. Vertical heat the pack vertically sealing temperature -157`
7. After vertically sealing then cut the pack by blade cutter of 12 pcs pack

Packaging (foil hazard)

1. When foil come to finish then it will be wastage some (about are chain for unhealthy vertical sealing).
2. When sotter sealing the some pack will be wastage.
3. Sometime product (peas) come to contact on vertical heat sealer then foil will be wastage.

Air management of packaging:

- Take from environment absorbed air by air compressor –air dryer reduce the humidity (water in air)
- When 60 psi come to air then compressor start for air absorbed. And when psi come at 120 then automatic compressor turned off.

Date code management:

At first 200`c at date code heated.so code time change the reborn temperature at 220-230`c. Rabon highest use at 3 time.

Pea's spices

1. Chili powder
2. Milk powder
3. Onion powder
4. Bit salt
5. Testing salt
6. Citric acid
7. Sucrose

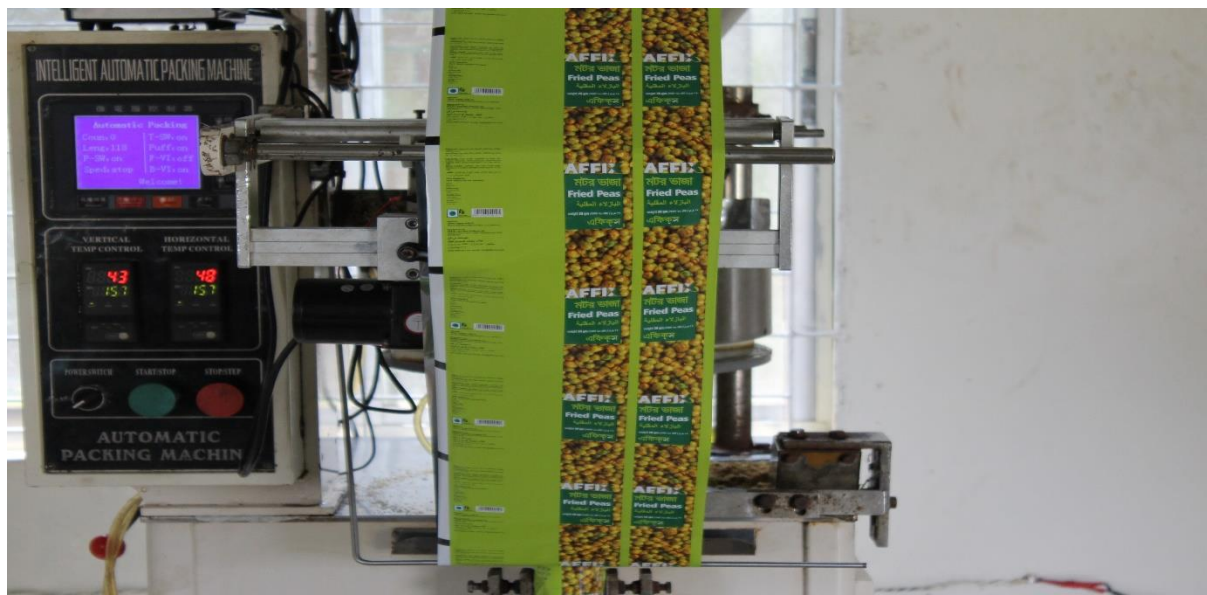


Fig : packing on frying peas

Chapter 3

Name of Test: Determination of Beverage Acidity.

Required Equipment's:

- Conical Flaks
- Burette
- Pipette with pipette filler
- Beaker
- Magnetic stirrer with magnet bar

Required Chemicals:

- NaOH 0.1N
- Phenolphthalein (Indicator)

Test Procedure:

- At first take beverage sample.
- Removed CO₂ properly from beverage.
- Take 10ml sample into a conical flaks by pipette.
- Add 2/3 drops phenolphthalein indicator into conical flask.
- Titration against 0.1N NaOH until pink color appeared.
- Take burette reading.
- Calculate % Acidity by using bellow calculation.

$$\text{Calculation: \% Acidity} = \frac{\text{Burette Reading} \times \text{Normality of NaOH} \times \text{Eq. Wt. of Acid} \times 100}{\text{Sample Wt.} \times 1000}$$

Name of Test: Determination of Beverage P^H

Required Equipment's:

- Beaker
- Magnetic stirrer with magnet bar
- P^H Meter

Test Procedure:

- At first take beverage sample into a beaker.
- Add magnetic bar into beaker and removed CO₂ properly from beverage sample by using magnetic stirrer.
- Removed magnetic bar from beaker.
- Placed P^H meter electrode into the beaker.
- Take reading from P^H meter which shown sample P^H.

Name of Test: Determination of Beverage %Brix

Required Equipment's:

- Beaker
- Magnetic stirrer with magnet bar
- Digital refractometer

Test Procedure:

- At first take beverage sample into a beaker.
- Add magnetic bar into beaker and removed CO₂ properly from beverage sample by using magnetic stirrer and removed magnetic bar from beaker.
- Or removed CO₂ properly from beverage sample by shaking.
- Open sample chamber of refractometer.
- Take few drop sample into refractometer sample chamber.
- Take reading from refractometer which shown sample brix as percentage.

Name of Test: Organoleptic Test (Taste, Odor, Appearance)

Required Equipment's:

- Beaker

Test Procedure:

- At first take beverage sample into a beaker.
- See beverage appearance and compare with existing one.
- Appearance should be complies.

- Take odor and compare with existing one.

- Must be not any bad odor and complies with existing one.

- Taste beverage sample.

- Compare with existing one.
- Taste should be complies.

Name of Test: Determination of Net Content.

Required Equipment's:

- Digital Balance Meter

Test Procedure:

- Take sample bottle from line just after filling according to number of filling valve.
- Measure every bottle gross weight by using digital balance meter.
- Measure net weight followed by given formulation.
- Measure net content followed by given formulation.

Tare Weight = (Pack size in Ltr. X 1.856 X Gass Volume.) + Preform Wt. + Closure Wt. [For after filling bottle]

Net Weight = Gross Wt. – Tare Wt.

Net Content = $\frac{\text{Net Weight}}{\text{Product Density}}$

Name of Test: Blown Bottle Performance Check.

Required Equipment's:

- Thickness Gage (Hall Effect)
- Bottle Hot Ware Cutter

Working Procedure (Bottle wall thickness):

- Take sample blown bottle from blow mold according to blow mold m/c cavity no.
- Enter magnetic ball into the sample bottle.
- Checked various points wall thickness (Shoulder, Label, Base & Gate Area) by using hall effect thickness gage.
- Recorded the wall thickness reading and compare with standard.
- All values should be within standard.

Working Procedure (Sectional Weight of Bottle):

- Take sample blown bottle from blow mold according to blow mold m/c cavity no.
- Set bottle at Hot ware cutter according to bottle wise provided standard range.
- Cut at various points of bottle and separate bottle section (Base, Label & Shoulder)
- Take various sectional weight of bottle by using digital balance meter.
- Recorder measured weight and compare with standard.
- All values should be within standard.

Name of Test: Determination of Gas Volume (GV).

Required Equipment's:

- CO₂ Tester
- Carbonation Calculator

Working Procedure:

- Take sample blown bottle from line after filler (Temp. about 40°F±3°F).
- Equilibrate line samples by gently inverting 15 times in 30 seconds (do not shake).
- Adjust bottle at CO₂ Tester.
- Removes excess air pressure in the headspace by opening snifting valve to ensure that only dissolved CO₂ is measured
- Shake it properly to a maximum constant pressure.
- Take pressure gauge reading as psi and thermometer reading as °F.
- Calculate CO₂ volume by using carbonation calculator from pressure and temperature.

Chapter 4

Procurement system

- Target for finished product by head office for 1 month.
- Requisition for raw materials by industries
- First in first out (FIFO)
- After testing the raw materials will be accepted or rejected
- Take in production flavor for processing according to per day production requirement.

Store/cm.c

LAB work

Equipment list of Lab

1. Micro oven
2. SST (Secure Seal Tester)
3. Co₂ cylinder
4. Magnetic stirrer
5. Moisture meter
6. Gauge tester
7. Digital meter
8. Viscometer
9. Water bath
10. Gas volume analyzer
11. BOD tester
12. CO₂ purity tester/ CO₂ volume tester
13. Enamel tester
14. COD analyzer
15. Distilled water plant
16. Density meter
17. Shaker
18. Thermometer
19. pH meter
20. Filter paper
21. Microscope
22. Colony counter
23. Digital Autoclave
24. Digital sterilizer
25. Laminar air flow
26. Refrigerator
27. Hand refract meter
28. Electric hot plate
29. Micro meter
30. Soxhlet apparatus
31. Funnel/conical flask

Making of Indicator

Phenolphthalein:

2. Take 0.5g dissolved in 50ml alcohol
3. Add 50ml distilled water

Mixed indicator:

1. 0.33g Bromocresol Green.
2. 0.66g methyl red.
3. Dissolve them in 100ml distilled water.

(0.1N) Sodium ThioSulphate:

1. Take 2.5g sodium thiosulphate.
2. Dissolve it into 100ml distilled water.

Irriochrom Black T (Hardness Indicator):

1. Take 6.1g sample.
2. Dissolve it into 100ml methanol.

Chapter 5

Microbiological Test

Name of the test: Total bacterial count

Method: Pour plate (For Water, Mango pulp, Fruit Drinks)

Purpose: The pour plate technique can be used to determine the number of microbes/ml or microbes/gram in a specimen.

Requirements:

- Sterile Petridis (90mm)
- Micropipette
- Alcohol (70%)
- Laminar Air Flow
- Autoclave
- Incubator
- Colony Counter
- Water bath
- Plate count Agar

Procedure:

1. Prepare the media and sterilized by autoclave at 121°C for 15 minutes, 14.5 psi.
2. Take specific amount of sample in Petridis.
3. After autoclaving media allow to cool in 40°C.
4. About 15-20ml of media is pour in Petridis and properly homogenized by clockwise & anticlockwise and allows to solidify.
5. After solidification incubate the plate at 37°C in inverted position for 24-48 hours.
6. After incubation count the colony by colony counter.
7. All the steps should be done under laminar air flow to maintain aseptic condition.

Results: count the result and record as cfu/ml or gm.

Name of the test: Total Yeast, mold count.

Method: Pour plate (For Water, Mango pulp, Fruit Drinks).

Purpose: The pour plate technique can be used to determine the number of microbes/ml or microbes/gram in a specimen.

Requirements:

- Sterile Petridis (90mm)
- Micropipette
- Alcohol (70%)
- Laminar Air Flow
- Autoclave
- Incubator
- Colony Counter
- Water bath
- Orange serum agar

Procedure:

1. Prepare the media and sterilized by autoclave at 121°C for 15 minutes, 14.5 psi.
2. Take specific amount of sample in Petridis.
3. After autoclaving media allow to cool in 40°C.
4. About 15-20ml of media is pour in Petridis and properly homogenized by clockwise & anticlockwise and allow to solidify.
5. After solidification incubate the plate at 37°C in inverted position for 24-48 hours.
6. After incubation count the colony by colony counter.
7. All the steps should be done under laminar air flow to maintain aseptic condition.

Results: Count the result and record as cfu/ml or gm.

Name of the test: Total Coliform count.

Method: Membrane Filtration (For Water).

Purpose: Use the membrane filter technique to determine the coli form bacteria from the specimen.

Requirements:

- Sterile membrane filter apparatus
- Sterile 0.45- μm filters
- Forceps
- Alcohol (70%)
- 47-mm Petri plate containing Endo Agar
- Incubator
- Laminar Air Flow

Procedure

1. Sterilize the membrane filter unit including funnel
2. Keep it into laminar air flow & clean the holder with 70% alcohol.
3. Placed membrane filter paper on holder & fixed with funnel.
4. Pour the sample into funnel & switch vacuum pump on.
5. Sample passed through membrane due to negative pressure of vacuum pump & samples are collected in another vessel.
6. Carefully remove the filter from the filter holder using sterile forceps.
7. Carefully place the filter on the Endo agar. Do not bend the filter; place one edge down first, then carefully set the remainder down. Do not leave air spaces between the filter and agar.
8. Invert the plate and incubate it for 24 hours at 35-37°C.
9. Observe and count all colonies that are red and have a metallic sheen.

Results

Examine membrane filters for presence of colored colonies. All red colonies having the characteristic metallic sheen are coli forms.

Name of the test: Total Coli form count.

Method: Pour plate (For Water, Mango pulp, Fruit Drinks).

Purpose: Use the Pour Plate Method to determine the coli form bacteria from the specimen.

Requirements:

- Sterile Petridis
- Micropipette
- Alcohol (70%)
- Laminar Air Flow
- Autoclave
- Incubator
- Water bath
- Endo Agar

Procedure:

1. Prepare the media and sterilized by autoclave at 121°C for 15 minutes, 14.5 psi.
2. Take specific amount of sample in Petridis.
4. After autoclaving media allow to cool in 40°C.
5. About 15-20ml of media is pour in Petridis and properly homogenized by clockwise & anticlockwise and allow to solidify.
6. After solidification incubate the plate at 37°C in inverted position for 24-48 hours.
7. Observe and count all colonies that are red and have a metallic sheen

Results

All red colonies having the characteristic metallic sheen are coli forms.

Name of the test: Total Yeast & Mold count.**Method:** Membrane Filtration (For Beverage).**Purpose:** Use the membrane filter technique to determine the Yeast & mold from the specimen.**Requirements:**

- Sterile membrane filter apparatus
- Sterile 0.45- μm filters
- Forceps
- Alcohol (70%)
- 47-mm Petri plate containing Plate Count Agar
- Autoclave
- Incubator
- Laminar Air Flow

Procedure

1. Sterilize the membrane filter unit including funnel
2. Keep it into laminar air flow & clean the holder with 70% alcohol.
3. Place membrane filter paper on holder & fixed with funnel.
4. Pour the sample into funnel & switch vacuum pump on.
5. Sample passed through membrane due to negative pressure of vacuum pump & samples are collected in another vessel.
6. Carefully remove the filter from the filter holder using sterile forceps.
7. Carefully place the filter on the orange serum agar plate. Do not bend the filter; place one edge down first, then carefully set the remainder down. Do not leave air spaces between the filter and agar. Place the filter on the agar as it was in the filter holder
8. Invert the plate and incubate it for 48-72 hours at 25-30°C.
9. After incubation count the colony by colony counter.
10. All the steps should be done under laminar air flow to maintain aseptic condition.

Results: Count the result and record as cfu/ml

Test name: flour gluten test:

Weight -25g

Water-12ml

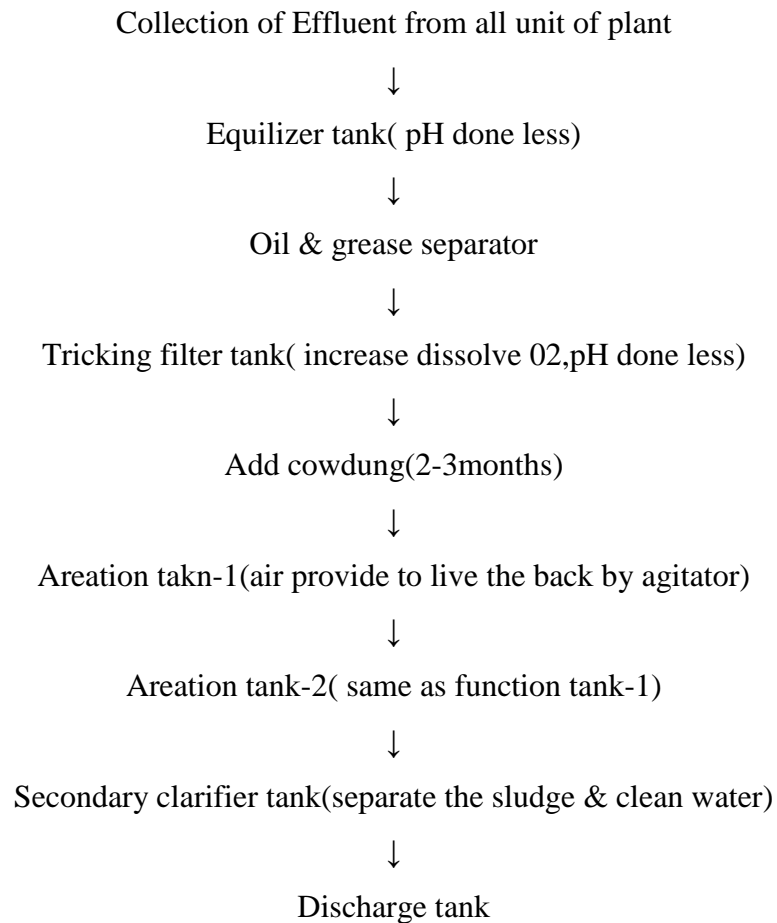
Then dough making by hand. Dough pluses into the water about 1 hour for soaking. then about shake the dough with water by hand (pressing) about 30min. finish the processing when show the moisture of flour .

Then it keep dry water.

Chapter 6

ETP Plant

Flow chart:



ETP Test Parameters:

1. Dissolved Oxygen (DO)
2. Chemical Oxygen Demand (COD)
3. Color
4. PH
5. Sludge volume

Conclusion

Affix consumer products Ltd. is one of the middle class food company in Bangladesh. I feel proud for that I have got an opportunity to train myself in this organization. Trainers are very sincere to us. They have given us enough time to try to give ideas about different sectors of the production and quality control department completely. Hope this experience will be useful in our real life.



THE END