



Progressive Education Society's

MODERN COLLEGE OF COMMERCE & COMPUTER STUDIES

MCCCS

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(Affiliated to Savitribai Phule Pune University, Recognized by Govt. of Maharashtra)

Modern Educational Campus, Sector - 21, Yamunanagar, Nigdi, Pune - 411044.

REPORT

As per UGC guidelines, Environmental Awareness course i.e. AECC has been made mandatory for all the S.Y students from all the disciplines. This course has been keenly added with an aim to inculcate environmental values in students, aware them and give fair idea of what are the responsibilities of us as an individual towards environment. This course consist students from S.Y. B.Com., S.Y. B.B.A, S.Y. B.B.A (CA). Lectures of all the students were conducted as per requirement and student assessment was done by conducting internal examinations and project report evaluation. Students were given exposure to this field by conducting various other activities like group discussion, presentations, showing documentaries etc.

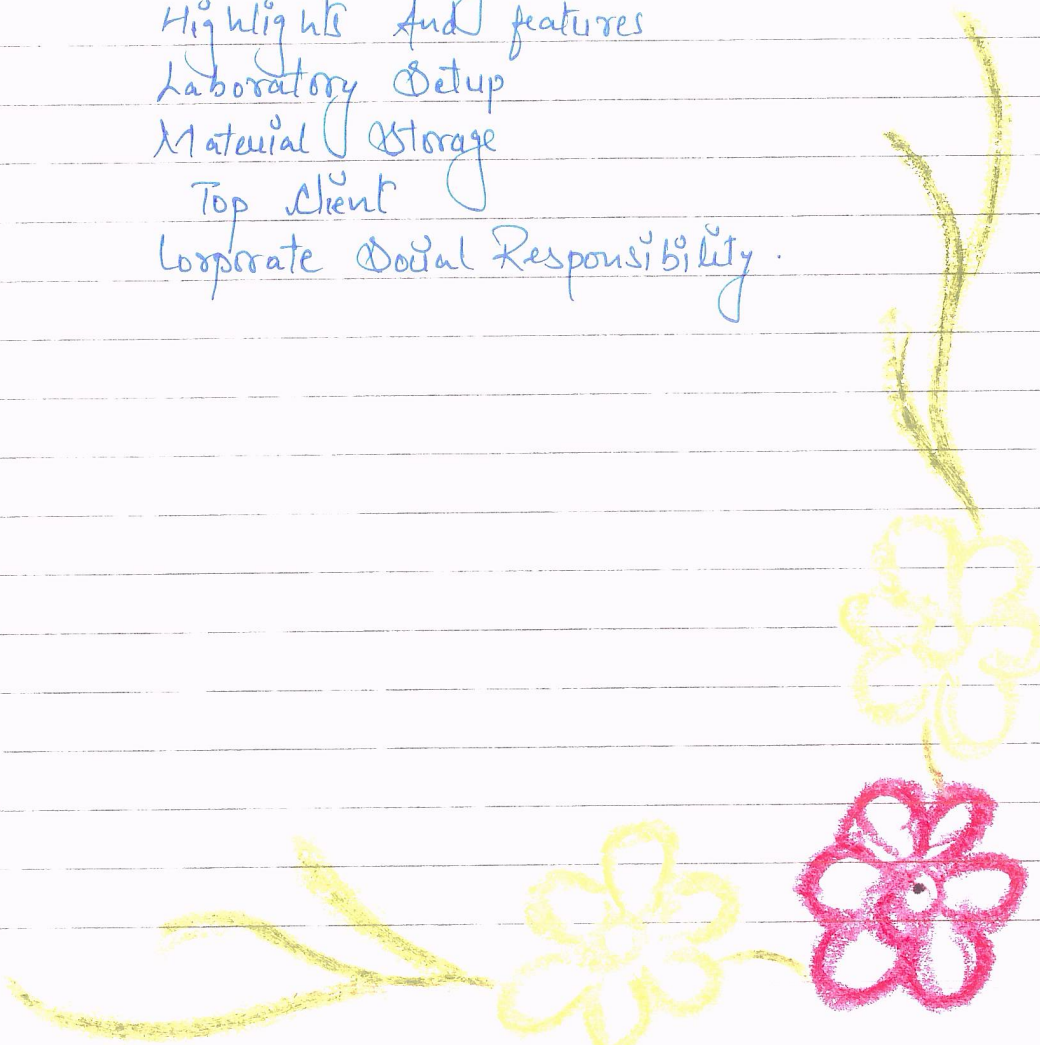


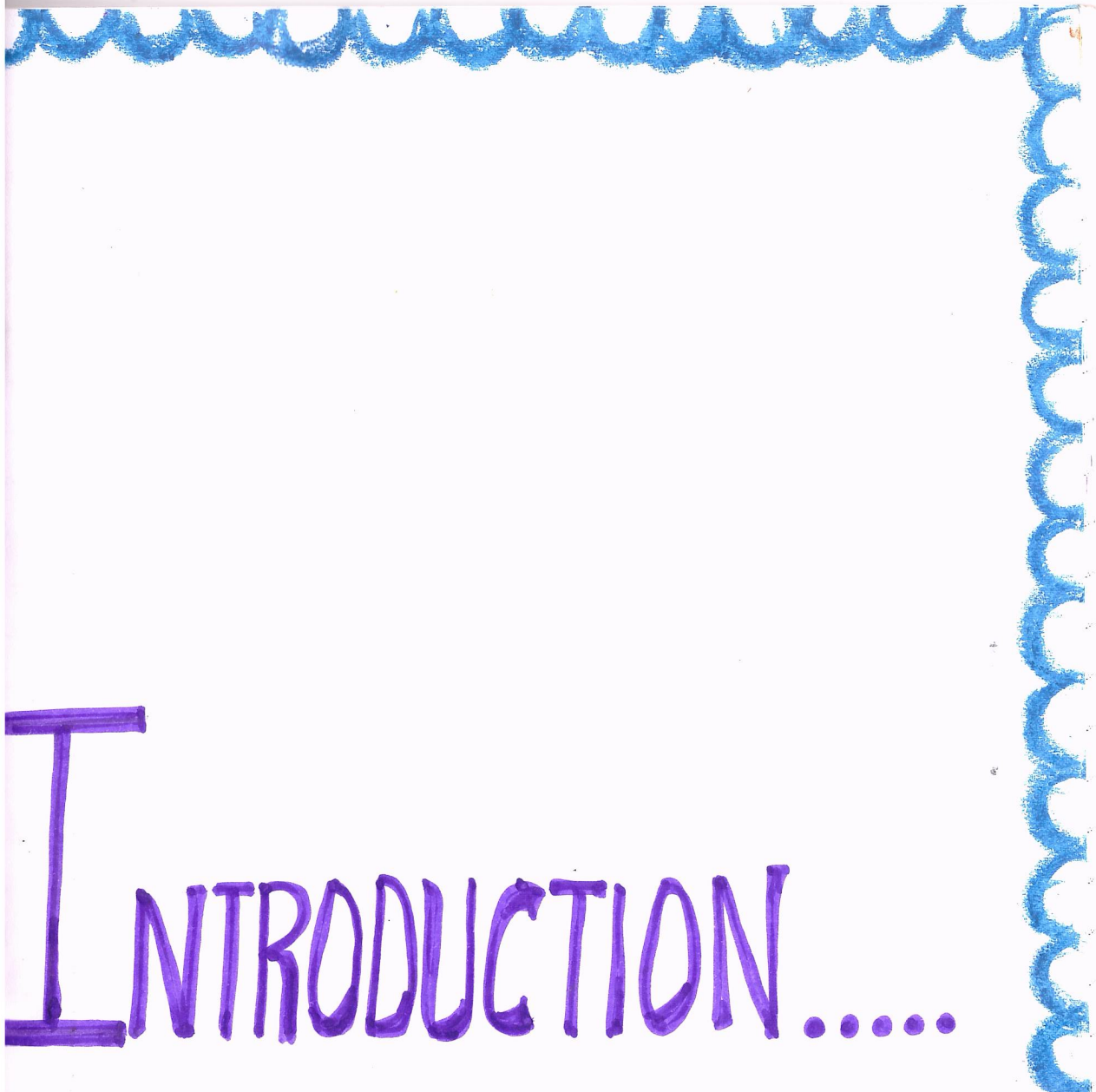

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I NTRODUCTION....





ABOUT MARS FINE...

- MARS FINE CHEMICALS ("Mars Fine")
was started by Mr. Virek Minguadkar.
- Thereafter, Mars Fine has grown to be a pioneer in the process of powder coating. In the year 1982, Mars Fine was certified as ISO 9001:2015 unit.
- Powder coating is a type of coating that is applied as a free-flowing, dry powder. The main difference between a conventional liquid paint and powder coating is that the powder coating does not require a solvent to keep the binder and filler parts in coating and is then cured under heat to allow it to flow and form a "skin". The powder may be a thermoplastic or thermoset polymer. It is usually used to create a hard finish that is tougher than conventional paint.

Powder coating is mainly used for coating of metals, such as household appliances, aluminium extrusions, drum hardware and automobile and bicycle parts.

Newer technologies allow other other materials, such as MDF (Medium - density fibreboard) to be powder coated using different methods.

The powder coating process was invented around 1945 by Daniel Gustin US Patent.

POWDER

COATING

SETUP



- PRE TREATMENT LINE

- (i) PHOSPHATING LINE :-

Phosphating is the process of converting a steel surface to iron phosphate. This is mostly used as a pretreatment method in conjunction with another method of corrosion protection. A layer of phosphate coating typically includes iron, zinc or manganese crystals.

- (ii) NANO-TECHNOLOGY LINE :-

Nano technology is a part of science and technology about the control of matter on the atomic and molecular scale. This means things that are about 100 nanometres across.

Nanotechnology includes making products that use parts this small, such as electronic devices, catalysts, sensors etc.

- **POWDER COATING BOOTHS**

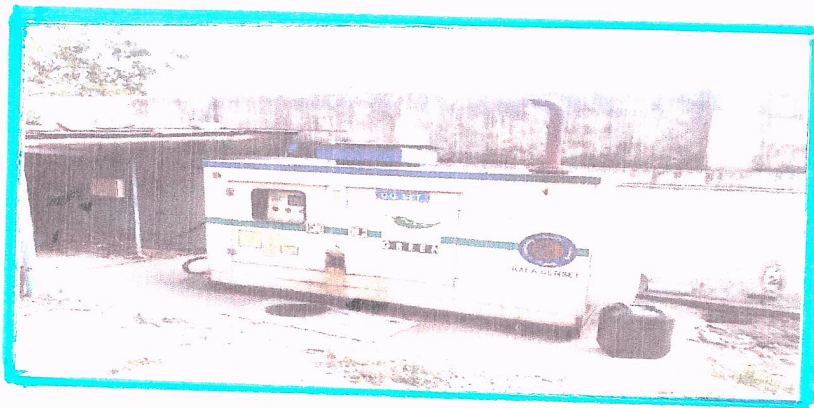
Powder coating booth is constructed by nut-bolt thus making the construction superior. Powder booths are designed with modular construction with powder coated steel, galvanized steel or stainless steel construction.

- **CURING OVEN - 2 Nos.**
PRE HEAT OVEN - 1 Nos.

The average time to preheat an oven to 350° is about 15 minutes, but the time varies depending on the store.

- **GENERATOR BACKUP**

Electric backup we installed a backup generator use - backup home backup generator - the main electric generator backup.





• AM WATER PLANT

(Demineralization Water)

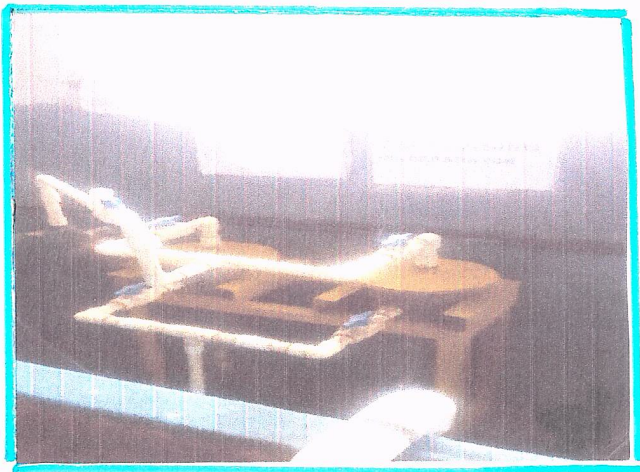
Demineralization is the process of removing mineral salts from water by using the ion exchange process. Demineralised water is water completely free of dissolved minerals as a result of one of the process :- Distillation.

• ETP PLANT

(Effluent treatment Plant) is a process design for treating the industrial waste water for its reuse or safe disposal to the environment.

PRE TREATMENT SET UP

- Complete Hoist line for Pre-treatment process.
- Buzzer and digital Indicator system for De-greasing and Phosphating with oil separator & Sludge separator.
- We are equipped with Nano pretreatment line for aluminum jobs and casting.





POWDER COATING LINE

- Mars line is equipped with 3 manual powder coating line.
- Conveyor line - MS set up :- Conveyor system are mainstays in industries where quick and fast handling of packaging and shipments is a must.... Vertical conveyors and other type of conveyor system are able to move a wide range of goods and product in multi-directional pattern.
- Manual line - MS set up :-
- Manual line - Aluminium set up :-

BUILDING SETUP ...

- 20,000 square feet plot size, with 14000 square feet R.C.C. two floor construction
- 50000 liters under ground storage tank.
- Building plan approved by local body & factory act authority.

GOVERNMENT PERMISSIONS ...

- Factory Act License, MPCB consent to operate for C.E.D & Powder coating, MSEM registered, I.S.O 9001:2015 Certification.

PRETREATMENT ...

- Three lines of pretreatment out of which one is Nano chemistry chemical with DM water plant, ETO Plant, oil filter & Sludge filter, Hoist with buzzer and digital Temperature Indicators.

- Using Chemetall - Rai chemicals for all Pretreatment lines.

POWDER COATING ...

- Three lines of powder coating is operation with three calibrated Ovens for preheating & curing. (We do only Black coating of Epoxy & P.P).
- Use of powder of Brands such as Burger, Marpol, Merocoat.

OTHER FEATURES ...

- Experienced & Qualified staff for product and quality assurance.
- Complete laboratory having instrument from DET to Humidity & Salt Spray testing.
- Mature & settled system and team of all record keeping, reconciliation, testing.
- Long track record of customer end PPM below 100 PPM.
- Gen set backup for uninterrupted working.

★ Inspection line with experienced and trained staff.



HIGHLIGHTS ...

AND ...

FEATURES ...

(1) Plant will be operational from End of February 2019.

(2) State of art set up, completely P.L.C. controlled Transporter, Ultra filter, Circulation, Anode, DM water, chilling Plant, Heating of chemicals, Rectifier.

(3) Fully equipped laboratory.

(4) Trained Staff, Dust free Isolated C.E.D Plant.

(5) Paint Tank Capacity - 1500 liters

(6) Tank Size - Height 900 mm, Length 1600 mm x width - 1600 mm.

Highlights and Features - Contd:-

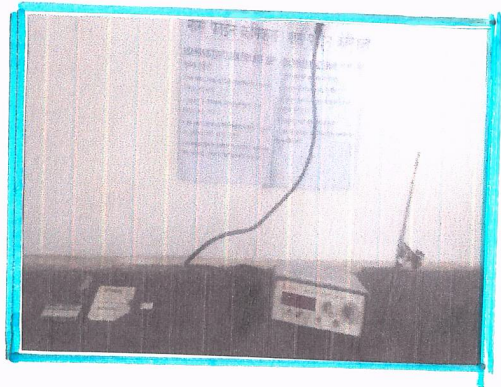
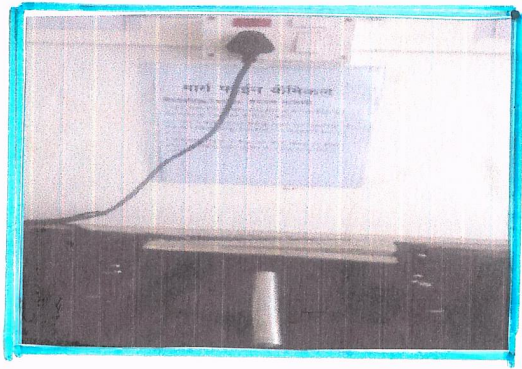
(1) C.E.D line with P.L.C Control Transporter safety guards. →

(2) Ultra Filter + Heating system of C.E.D Line. →

(3) C.E.D Line







LABORATORY SETUP...

NUMBERS	EQUIPMENT NAMES
1	DFT Meter (Digital)
2	Cross Hatch Test
3	Pencil Hardness
4	Conductivity Meter
5	pH meter digital
6	Conical Mandrel Tester
7	Oil Bath
8	Hot Air Oven
9	Impact Tester
10	Sensitive Weighing Balance
11	Humidity Testing facilities
12	Salt Spray Testing facilities
13	Complete set of titration testing to find out point age of tanks

MATERIAL STORAGE

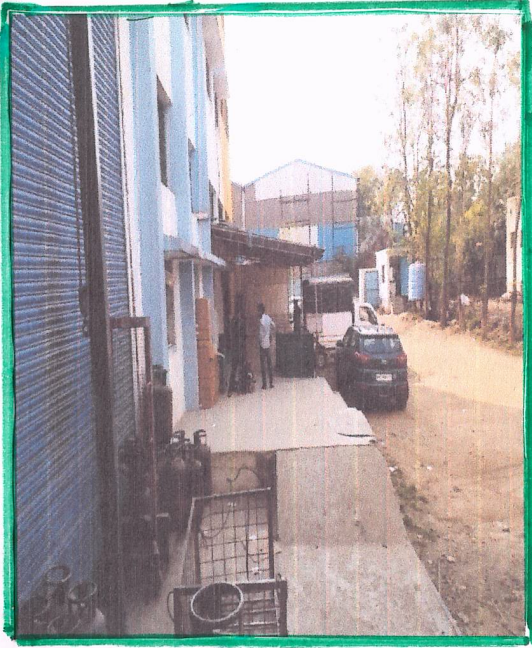
Additional space (shed) created for incoming + outgoing Material for new and additional activity.

The material storage system allows materials to be stacked for a specified period of time, before they are re-introduced, or are introduced for the first time, into the automation system. The sorts of stored material are related to the product.

Proper material storage and house-keeping are essential in maintaining a functional office operations.

To maximize space and reduce the overall handling requirements, fabricators need to load parts of material into properly sized bins and containers.

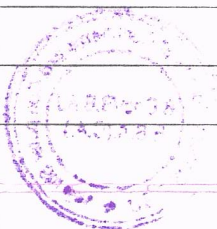
Planning the inventory system and proper product flow is necessary to ensure the best storage solution.



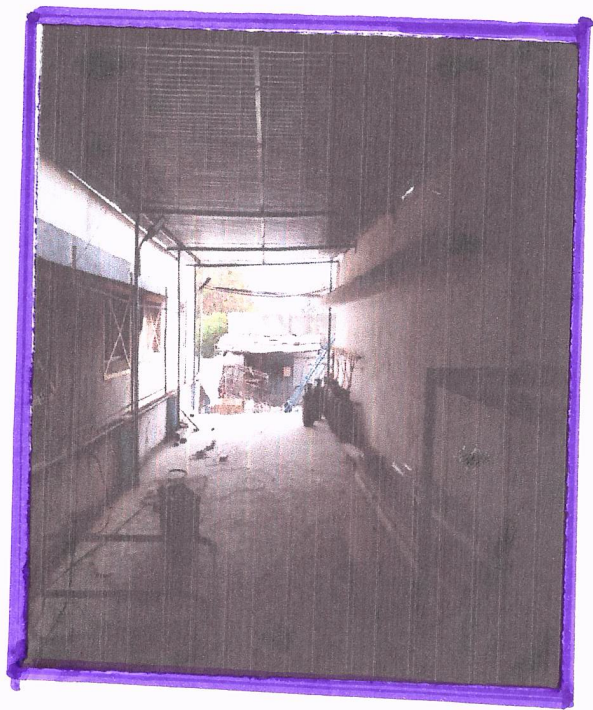
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TOP CLIENT...

- (1) Lear Corporation India (P) LTD
- (2) Caparo Engineering Pvt LTD
- (3) Gabriel India LTD
- (4) Minda Corporation LTD
- (5) Aditya Auto Production & Engg (I) PVT. LTD
- (6) Dugi Torqtransfer System PVT. LTD
- (7) Associated Manufacturing LLP
- (8) S.M. Auto
- (9) Dali & Senior Engg PVT. LTD.



Inventory
Process 2.8
Approved to control process
and control and
APD 117 - 0004 India



CORPORATE SOCIAL RESPONSIBILITY

- (1) Sponsorship of education of children who comes from poor financial background.
- (2) Initiatives for a cleaner environment through the awareness programmes, plantations and green belt development programmes.
- (3) Donations have been given to the charitable institutions and social welfare organizations working for the cause of the upliftment of the poor and downtrodden.
- (4) Infrastructure development at the vicinity of the various manufacturing locations.
- (5) The aim of the activity was to empower women from simple background with the right set of skills, putting them on the path of becoming professional ~~Accounting~~ and decorating specialists.

II VISIT

1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

MAPRO FOODS

PVT. LTD



INTRODUCTION

Klapro foods Pvt. Ltd, a fruit processing company, develops, produces, packages stores, and sells fruit confectionery product in India. It offers fruit, jams, crusts, squares, bars, jellies, syrups, fruit crush concentrates, chocolates and desert toppings. The company market its product through distributors and stores. Klapro foods was founded in 1959 and based in wai, India with additional office in porchanganj mumbai and pune, India.

Managing Director and director of Klapro
Mr. Mayur Dora.

INDUSTRY PROFILE

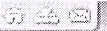
Mapro food pvt. Ltd is a fruit processing company which is situated at Panchgani (near Mahabaleshwar) a panoramic and beautiful hill station of western India. It is in the fruit processing business over more than forty years and it is known for quality and innovation in the industry. The brand mapro is a well-recognised brand in India.

The company has shown organization growth over the last four decades representing sound financials with sustained profitability. Set up as a family business over 45 year ago, it has earned a name for quality and consistency mapro products enjoy premium status in the India market. The manufacturing facilities are certified ISO 9001:2000 and HACCP by BVOI.

The company has expanded to now produce 20,000 MT of processed frozen foods p.a. - It is getting up a frozen and p.a. fresh food distribution chain in India.

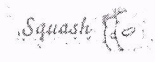


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SEARCH FOR PRODUCTS

A delightful array of fruity freshness





VISION ...

To expand the distribution all over the country from 400 to 700 distributors.

To be the best modern, quality focused fruit product manufacturing unit in India.

To increase their demand and export in foreign markets.

MISSION ...

Mapro has a mission to develop, produce package and all food product with highest taste and nutrition at affordable price.

Their mission is to meet and exceed customer expectations.

Mapro works on the philosophy of good, wholesome nutrition value for many and above all the touch of imaginations.

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MANUFACTURING PROCESS

The ingredients must be added in carefully measured amounts. Ideally they should be combined in the following manner - 1% pectin, 65% sugar, and an acid of 3.1-pH. Too much... will make the spread too near. Too much sugar will make it too sticky.

I INSPECTION

Fruit are arrived at the plant for inspection for quality. Using colours, ripeness, and taste passed fruits are loaded into funnel shaped hoppers to carry the fruits into pipes for cleaning & crushing.

II CLEANING, CRUSHING, CHOPPING

As the fruits arrive at the plant, it is inspected for quality use. The fruit travels through the pipes a gentle water through spray clears away surface dirt depending on other finished product is to be jam or jelly, paddles push the fruits, such and just its juice through small holes leaving stems and any other excess debris behind.





III PASTEURIZING THE FRUIT

The fruit and for juice continues through another set of pipes to cooking units. It is heated to just below the boiling point (102°F (100°C)) and then immediately chilled to just below freezing (33°F (0°C)) for fully pulp is forced through another set of small openings that holds back seeds and skin.

IV COOKING THE JAM + JELLY

The measured out of the fruit and juice, sugar and pectin are blended in industrial cooking. The mixture are usually cooked + cooked three times.

V FILLING THE JARS

Pre-sterilised jars move along a conveyor belt as sprout positioned above pour premeasured amount of jam or jelly into them metal caps are then vacuumed resealed on top. The process of filling the jars + vacuum backing them force all of the air out of the jars further ensuring the sterility of the product.

COMPETITORS

Mapro foods have so many competitors in different categories of products. In fruit drink segment kisson, kokumari, Mala's Paperi bout are the tough competitors of mapro where kisson is the biggest player in the market.

In Jam section, kisson meal are the competitors.

In jelly segment appulibe's just jelly is a competitors.

Hershey's and funfoods, are the competitor in chocolate toppings segment.

In gutkand category mapro have very few competitors.



Lounge



Mapro garden, Mahabaleshwar

FUTURE PLANS

This is a lot of growth potential in the industry where \perp stock over production of fruit products was at 1500 lgs. Now it's 25,000 in a year we could touch 1000 crores turnover in 5 years time.

MARKETING STRATEGY

Footfalls at the factory premise in wai & panchgani enable them to promote their brand through word of mouth which is a large extent has been instrument in their success in the western regions.

The company concentrated on profit of sale production rather than embarking on a brand building security and electronic media.

Mapro does not use advertising medium like press radio & TV to propagate its product but the taste of product & nutrition value & unique result in repeat sales.

TURNOVER

- (i) The squash market pegged at ₹ 70 crore is growing at 10 percent.
- (ii) Falro priced at ₹ 1 its contribution 50% of revenue.

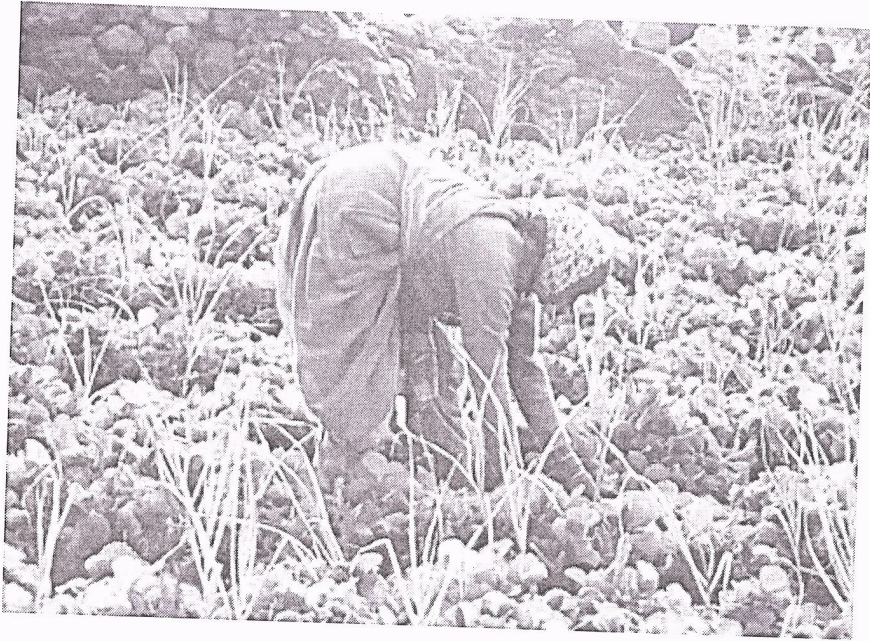
ACHIEVEMENTS

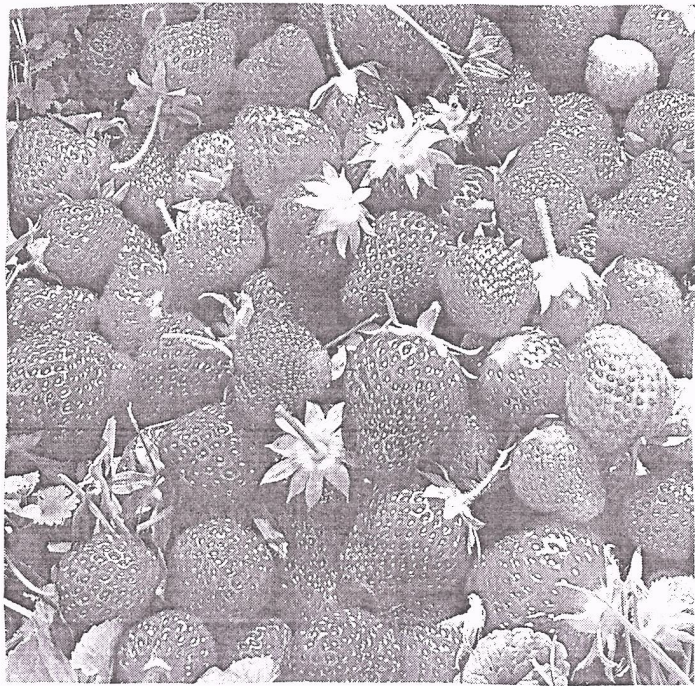
Mapro foods one of the leading boards in the food and beverage sector has named us one of the world's most effective rebrand in the 8th Annual Rebrand 100 global awards.

Mapro is the only company from India bestowed with this hova brand 100 global awards is the 1st most representative global programme highest kind of it ranked as the highest for excellence in brand repositioning.

CLIENTS OF COMPANY

Mapro put Ltd. has customer from a wide range of people. Mostly the customer of company are children as the product of mapro are targeted for this group only i.e. mapro produce chocolate jellie and jam & many more which is mostly liked by the children only.



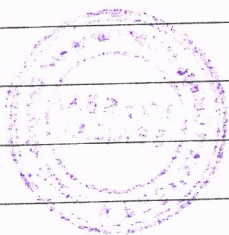


CORPORATE SOCIAL RESPONSIBILITY

At macro corporate social responsibility is a part of the business.

During the year 2015 the company contributed towards the rural development by providing water pipeline from choudork goon to gulomb goon under the scheme 'Jalyat Shiver Abhiyan' by govt of India.

This will help farmer and local community for supply of water community for contributions made by the company will help in rural development of India.



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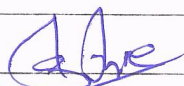
CONCLUSION

It is easy for the manufacturing unit to get a regular & steady supply of input. The overall process is completed in a matter of minutes.

There is a good blend of human and machine resource. At no point of production is there wastage of time. Hygiene level are up to the mark. The bottle sterilization with the help of machine help in saving a lot of time & energy.

REFERENCES

- (1) www.mapro.com
- (2) www.slide share .net
- www.first.post.com.



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