

संख्याशास्त्र विभाग,
किसन वीर महाविद्यालय, वाई
दि. २१/०२/२०१९

प्रति,
मा. प्राचार्य,
किसन वीर महाविद्यालय, वाई

विषय:- अभ्यास सहलीस परवानगी मिळणेबाबत ...

महोदय,

उपरोक्त विषयास अनुसरून, शिवाजी विद्यापीठ, कोल्हापूर यांचे बी. एस्सी. भाग २ संख्याशास्त्र विषयाचे अभ्यासक्रमानुसार या वर्गाची अभ्यास सहल वाई ते मॅट्रो गार्डन शेंदूरजणे अशी आयोजित करित आहोत तरी या अभ्यास सहलीस आपली परवानगी मिळावी.

Allowed
but look after
each part during
visit

आपला विश्वासू,

प्रा. पटकरे बी. बी.

२/०२/१९

Janata Shikshan Sanstha's
Kisan Veer Mahavidyalaya, Wai

B. Sc II
2018-19

Field Visit

Sr. No.	Roll No.	Name of Student
1	91	DHARKARI VISHAL CHANDRAKANT
2	92	LAKKEBAILKAR VIJAYALAKSHMI ARJUN
3	93	SANKPAL AVINASH DILIP
4	94	BHOSALE SWATI PANDURANG
5	95	CHAUDHARI NEHA PRAKASH
6	96	SURYAWANSHI ASMITA RAMDAS
7	97	GADHAVE SAMRUDDHI SANJAY
8	98	PHANSE KOMAL JAGANNATH
9	99	BHANAGE PRAJAKTA UTTAM
10	100	GOLE NILAM BHARAT
11	101	KONDHALKAR MONALI HINDURAO
12	102	NEVASE SONALI CHANDRAKANT
13	103	SONAWALE AISHWARYA KISAN
14	104	KESHAWAY SELIN SUNIL
15	105	RAUT NIVEDITA BHASKAR
16	106	KADAM PRIYANKA DNYANESHWAR
17	107	PISAL ANKITA DNYANESHWAR
18	108	SAPKAL NIKITA SUBHASH
19	109	MULIK VARSHA GULABRAO
20	110	GORE SARITA BABAN
21	111	RAJPURE PRATIKSHA ROHIDAS
22	112	KUMBHAR DHANSHREE ANKUSH
23	113	RAJPURE SHRADDHA SHRIKANT
24	114	ITHAPE SNEHAL SUNIL
25	115	CHAVAN ANUJA SANJAY
26	116	ITHAPE MAYURI RAMESH
27	117	PACHANGANE MANASI RAVINDRA
28	118	NIMBALKAR ANKITA SUNIL
29	119	SHINDE SWARAJ JIVAN
30	120	SAWANT SHUBHAM MANOJ

Sign

Arjun
Sijayachari

Susale
Suryawanshi

Gadhve
Phanse

Prajakta
Gole

Mkondhalkar
Nevase

Sonawale
Keshaway

Raut N.R.
Kadam

Pisal
Sapkale

Gore
Rajpure

D.A. Kumbhar
Shraddha
Ithape

Chavan
Ithape
Pachangane

Nimbalkar
Shinde

(Signature)

Head

Department of Statistics
Kisan Veer Mahavidyalaya, Wai
Dist. Satara - 412803

ROLL NO - 95

EXAM SEAT NO 30602

JANTA SHIKSHAN SANSTHA

KISANVEERMAHAVIDHYALYA, WAI

TOUR REPORT CERTIFICATE

DEPARTMENT OF STATISTICS

DATE 1/4/2019

This certificate that
shri/miss Chaudhari Neha prakash
.....has satisfactory carried out the requird tour week, according
to syllsbus prescribed by Shivaji university, Kolhapur for the class
BSC II in statastices and that/this journals represents his/her
bonafide work in the year

TEACHER- CHARGE

HEAD OF DEPARTMENT

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10/4/19

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11/4/19

INTRODUCTION

According to the syllabus UNIVERSITY, KOLHAPUR in B.Sc II class department of statistics has organize tour and we have to make the report.

We arrange the tour at MAPRO GARDEN Shendurjane, at 2 nd march **2019**. In this tour we get the information about products of mapro and how they produce that products and how it keep for long time, there quality control and marketing an other procedure related to this products.

In mapro garden we visited 2nd march at 11 am. First we see the mapro, there production and how the workers can do their duties .we observe other things in mapro their products and how they maintain their mapro garden . This garden's quality controller Tapan Jeswal gives all information about that products. He is B. tech in food technology . in mapro there are total 200 products. This garden is in 40 acrs. There are 500 workers. At this mapro, 500 visiters visited daily and at the holidays on an average 1000 visiters visit the mapro per day.

For the production of products they obtain row material from many places i.e Krnataka-pinapple, Bihar-brich, New zealand-kiwi, Ratnagiri-alfanzo,Erak;eran-date, USA; California-almond,Sangli-resines.They need juice 30000 lit/day,Jam 30000 kg/day at like this they need abundant amount of row material daily.For productions of single product there are many procedures such as making crush,adding flavours,preservatives.They control quality of that product by using many parameter such as acidity, colour,thickness and so on. For keeping quality in maintained state they need certificate of Food Safety Standard Authority of India(FSSAI) . For better quality they observe the procedure of products continuosly.

Raw Materials

Jams and jellies are made from a variety of fruits, either singly or in combination. Most of the fruits are harvested in the fall. The level of ripeness varies. Pears, peaches, apricots, strawberries, and raspberries gel best if picked slightly under ripe. Plums and cherries are best if picked when just ripe. The fruit is purchased from farmers. Most jam and jelly producers develop close relationships with their growers in order to ensure quality. The production plants are built close to the fruit farms so that the time elapsed between harvest and preparation is between 12-24 hours.

Sugar or high fructose corn syrup, or a combination of the two are added to the fruit to sweeten it. Cane sugar chips are the ideal type of sugar used for preserving fruit. Granulated and beet sugar tend to crystallize. Sugar is purchased from an outside supplier. High fructose corn syrup is processed by fermenting cornstarch. It is purchased from an outside supplier.

The element that allows fruit to gel, pectin is present in varying degrees in all fruit. Apples, blackberries, cherries, citrus fruits, grapes, quinces, and cranberries have the best natural gelling properties. Strawberries and apricots are low in pectin. Jams made from such fruits are either blended with fruits high in pectin, or extra sugar is added to the mixture. Sometimes pectin is extracted industrially from dried apples.

Citric acid is added to obtain the correct balance needed to produce the jam or jelly. Lime and lemon juice are high in citric acid, therefore they are the most prevalent source used. Citric acid can also be obtained by the fermentation of sugars. It is purchased from outside suppliers.

Other flavorings, such as vanilla, cinnamon, mint, alcoholic beverages such as rum or Kirsch, can be added to the jam or jelly. These flavorings are purchased from outside suppliers.

The Manufacturing Process

The process given below is mainly for jams and jellies. There is not much difference in the production processes of crushes, syrups, etc.

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 concentration of pH 3.1. Too much pectin will make the spread too hard, too much sugar will make it too sticky.

Inspection

- When the fruit arrives at the plant, it is inspected for quality, using color, ripeness, and taste as guides. Fruit that passes inspection is loaded into a funnel-shaped hopper that carries the fruit into pipes for cleaning and crushing.

Cleaning, crushing, and chopping

- As the fruit travels through the pipes, a gentle water spray clears away surface dirt. Depending on whether the finished product is to be jam or jelly, paddles push the fruit and or just its juice through small holes, leaving stems and any other excess debris behind. Some fruits, such as citrus and apples may be manually peeled, cored, sliced and diced. Cherries may be soaked and then pitted before being crushed.

Pasteurizing the fruit

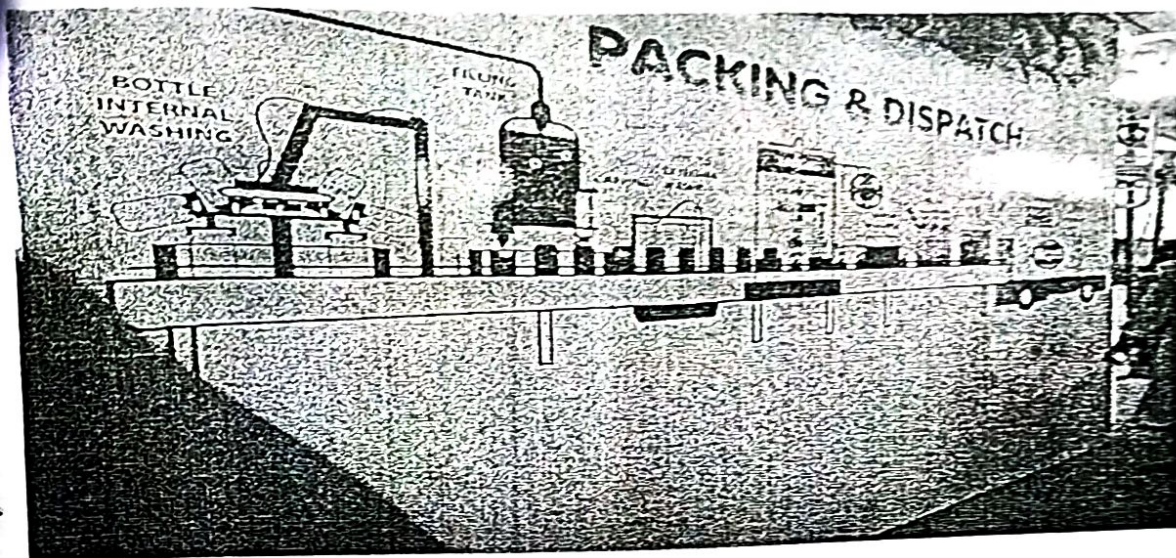
- The fruit and/or juice continues through another set of pipes to cooking vats. Here, it is heated to just below the boiling point (212° F (100° C)) and then immediately chilled to just below freezing (32° F (0° C)). This process, pasteurization, prevents spoilage. For jelly, the pulp is forced through another set of small openings that holds back seeds and skin. It will often then be passed through a dejuicer or filter. The juice or fruit is transferred to large refrigerated tanks and then pumped to cooking kettles as needed.

Cooking the jam and jelly

- Pre-measured amounts of fruit and/or juice, sugar, and pectin are blended in industrial cooking kettles. The mixtures are usually cooked and cooled three times. If additional flavorings are to be included, they are added at this point. When the mixture reaches the predetermined thickness and sweetness, it is pumped to filling machines.

Filling the jars

- Pre-sterilized jars move along a conveyor belt as spouts positioned above pour pre-measured amounts of jam or jelly into them. Metal caps are then vacuumed sealed on top. The process of filling the jars and vacuum packing them forces all of the air out of the jars further insuring the sterility of the product.



Labeling and packaging

- The sealed jars are conveyed to a machine that affixes preprinted labels. According to law, these labels must list truthful and specific information about the contents. The jars are then packed into cartons for shipment. Depending on the size of the producer's operation, labeling and packaging is either achieved mechanically or manually.



PRODUCTS

Mapro produces a number of items ranging from jams, jellies, crushes, syrups, etc. Their leading product is Rose Syrup, made from rose petals and their extracts. The manufacturing process for most of their products is similar only differing in the types of fruits used and the variations in cooking temperatures and pectin ratio.

Fruit sweets with real fruit jam:

These soft Fruity Sweets and Jelly Sweets are 100% vegetarian as they are made with pectin, a fruit extract. They contain no Gelatin. Contain nutritious fruit juice & instant energy. Are an instant hit with kids.

- Fruity sweets
- Jelly sweets
- Falchoos
- Jelly cubes
- Fruit cubes
- Fruit pebbles



Jam:

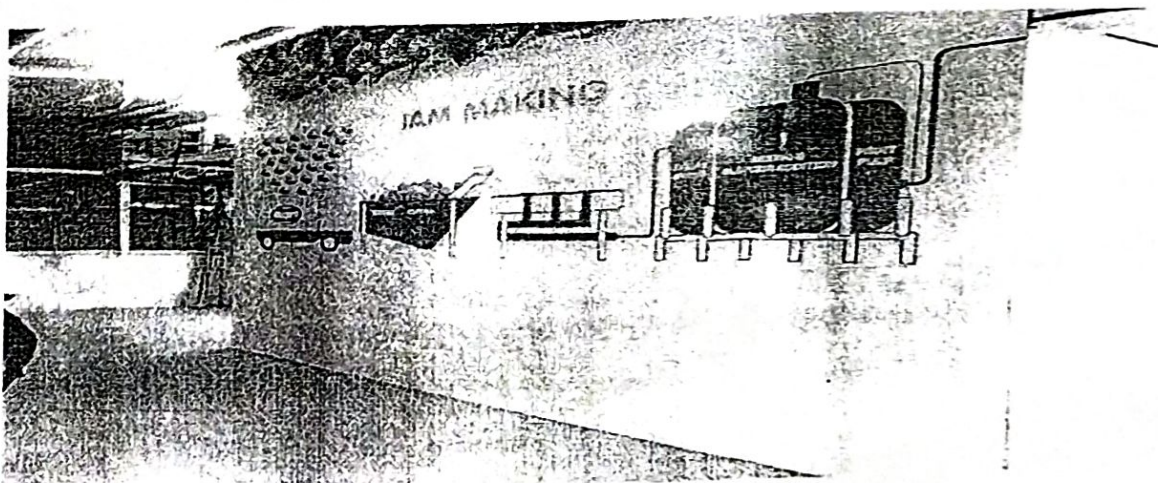
A Whole range of delicious fruity jams are produced by Mapro units in Panchgani and Wai. These jams are made with certain specific fruits and fruit pulps as required by the recipe. The various types produced involve:-

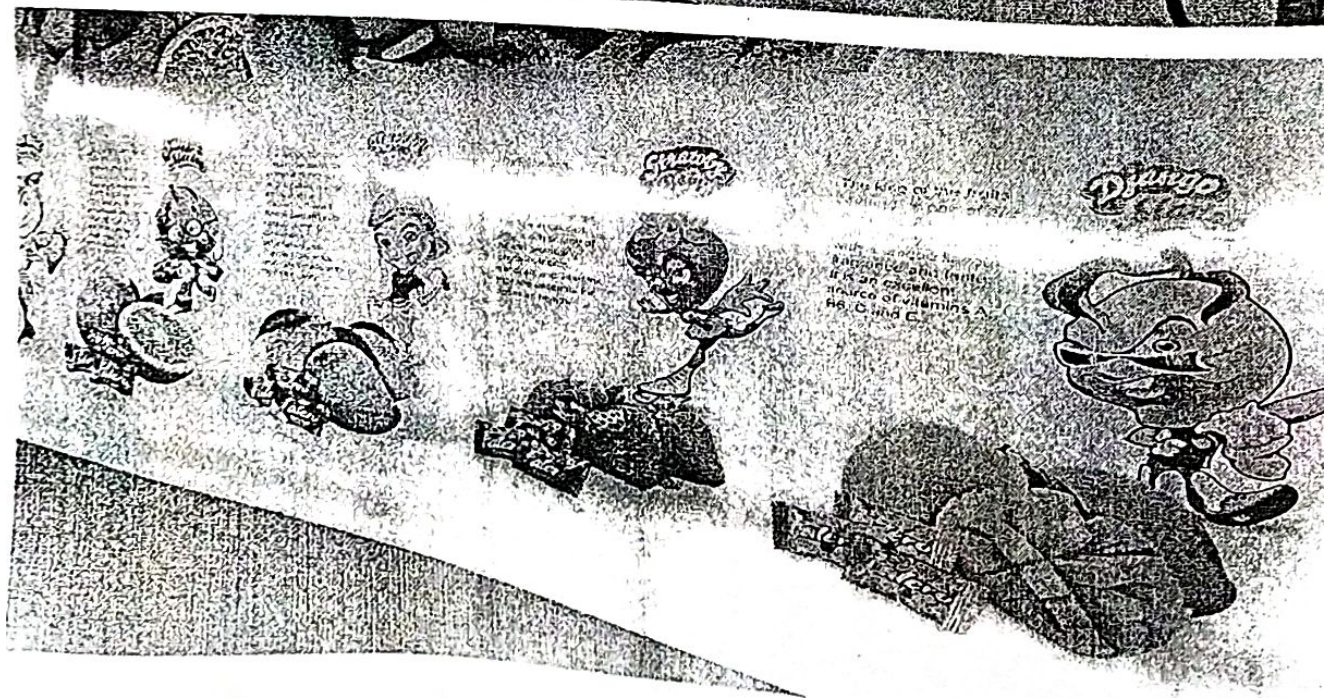
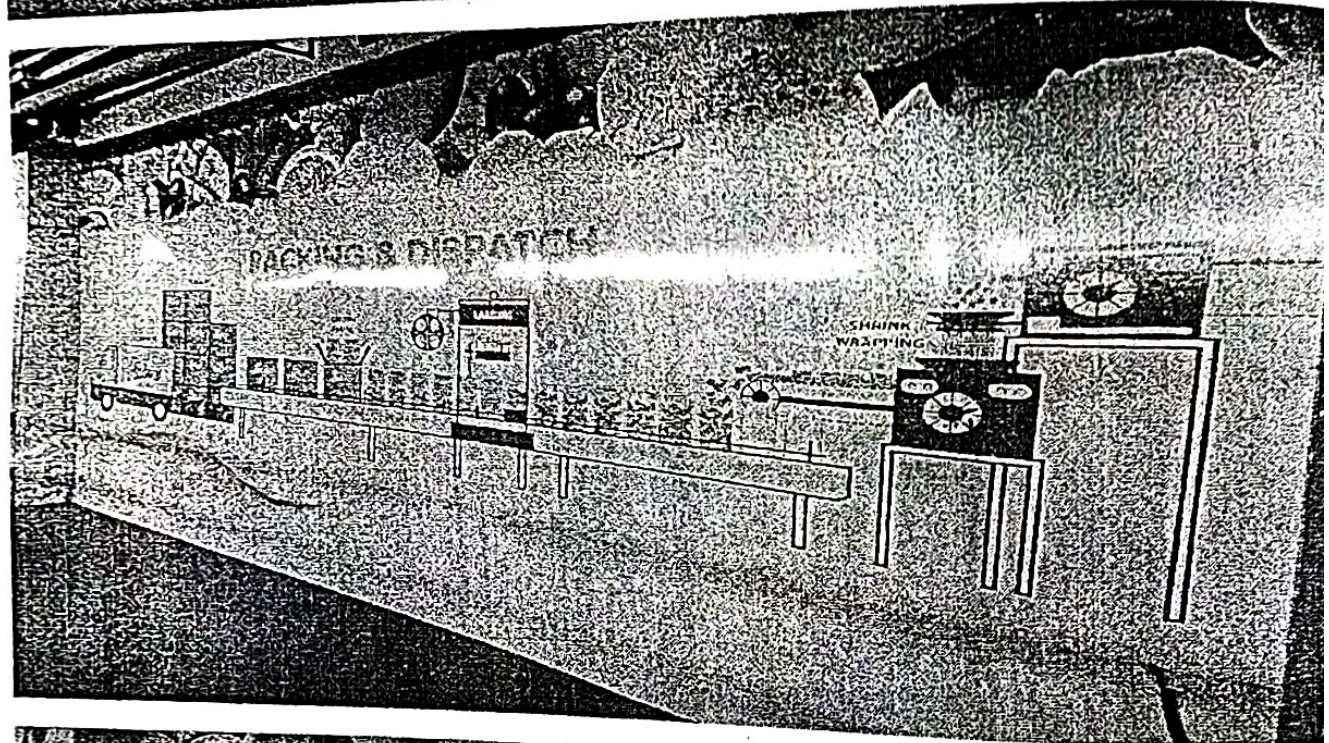
- Mango
- Orange marmalade
- Strawberry
- Pineapple
- Raspberry
- Mix fruit

Crush:

Ideal with milkshakes ice-creams, puddings, desserts and new even mithai. This bestseller makes milkshakes thicker and ice-creams richer.

- Strawberry crush
- Litchi crush
- Alphonso mango crush
- Mango crush
- Kiwi crush
- Kokum crush
- Pineapple crush





Syrup:



Syrups are made with pure contents for the exclusive natural flavours & properties. The Syrup recipes are balanced to allow use in sherbats, milkshakes, faloodas and even ice-cream toppings.

- Rose syrup
- Khus syrup
- Thandai syrup
- Mahakool syrup
- Strawberry syrup
- Kesar syrup
- Pineapple syrup

Squash:

Mapro squashes with their high fruit content are terrific for Sherbats and Fruit Punch.

Squashes



- Orange squash
- Lemon squash
- Lemon barley water
- Strawberry squash
- Lime juice cordial
- Lemon ginger squash
- Strawberry cordial
- Pineapple cordial

Ice-cream:

Mapro does produce ice-creams on a large scale. It is only produced and supplied at the Mapro garden in Panchgani.

- Strawberry
- Mango
- Pineapple Rose
- Bitter Chocolate
- Almonds
- Honey (sugar free)

MARKETING

Footfalls at the factory premises in Wai and Panchgani enable them to promote their brand through word-of-mouth which to a large extent has been instrumental in their success in the western region.

The company concentrates on point-of-sales promotion rather than embarking on a grandiose brand-building activity involving print and electronic media. Mapro as a brand is small to sustain a large-scale media blitz. That is why the initiatives have been restricted to point-of-sale promos.

Since Mahabaleshwar is a premier hill station in Maharashtra, attracting tourists by the thousands, brand-building is conducted through free tasting counters for jams, crushes, syrups, squashes and confectionery. Mapro promotes its products throughout the year in vicinity of Panchgani and Mahabaleshwar. The roads leading up to these hill-stations are full of Mapro advertisements. Even the main roads in these areas have hoardings, counters, etc.

Mapro does not use advertising medium like press, radio and television to propagate its product but the taste of product and nutritional value, and uniqueness result in repeat sales.

OBSERVATION(What we saw) :

- The manufacturing unit in Shendurjane is located in place which are very close to raw material producer.
- Most of the process in the unit is automated.
- Superior level of hygiene is maintained in and around the production unit.
- Factory was divided mainly into 3 parts- jams, fruit sweets, crushes.
- There was a lot of free space inside the main factory.

MISSION

Mapro Foods Private Limited is the flat organization where management works along with their technical and sales functionaries to achieve the vision and mission of MFPL.

"Mapro will develop, produce, package & sell food products, with high regards for safety, nutrition & taste, which we can confidently give to our customers by implementing and continually improving Quality Management system & food safety management system to meet & exceed customers' expectations."

CONCLUSION:

- It is easy for the manufacturing units to get a regular and steady supply of inputs.
- The overall process is completed in a matter of minutes. There is a good blend of human and machine resources. At no point of production is there wastage of time.
- Hygiene levels are up to the mark. There is no scope for spoilage on account of unhygienic conditions.
- The free space within the factory could be used up for more machines in order to increase production.
- The bottle sterilization with the help of machines helps in saving a lot of time and energy.