Awareness Programme on Value Added Products from Fruits and Vegetables

MARKETING OF FRESH FRUIT AND VEGETABLE AND THEIR PROCESSED PRODUCTS

Sponsored by-
Ministry of Agriculture
(Deprt. of Agriculture & Co-operation) Govt. of India

School of Agriculture
Indira Gandhi National Open University, New Delhi
“Education is a liberating force, and in our age it is also a democratising force, cutting across the barriers of caste and class, smoothing out inequalities imposed by birth and other circumstances.”
– Indira Gandhi
MARKETING OF FRESH FRUIT AND VEGETABLE AND THEIR PROCESSED PRODUCTS

Awareness Programme

on

Value Added Products from Fruits and Vegetables

Sponsored by

Ministry of Agriculture
(Deprt. of Agriculture & Co-operation)
Govt. of India

School of Agriculture
Indira Gandhi National Open University
Maidan Garhi, New Delhi-110068
### ORGANIZING COMMITTEE

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Institution/Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. H. P. Dixit</td>
<td>Prof. S. C. Garg</td>
<td>Prof. Panjib Singh</td>
</tr>
<tr>
<td>Ex-Vice Chancellor</td>
<td>Acting Vice Chancellor</td>
<td>Former Professor, SOA &amp; presently</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vice Chancellor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BHU, Banaras (U.P)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr. A. K. Agarwal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Joint Secretary (Extn)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ministry of Agriculture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dept. of Agri. &amp; Cooperation (Govt. of India)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Krishi Bhawan, New Delhi</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. Pa.</td>
<td>Former Director</td>
</tr>
<tr>
<td>Prof. M. C. Nair</td>
<td>Deputy Director, CEE</td>
</tr>
<tr>
<td>Dr. M. K. Salooja</td>
<td>Professor</td>
</tr>
<tr>
<td>Dr. Indrani Lahiri</td>
<td>Assistant Director</td>
</tr>
<tr>
<td>Dr. D. S. Khurdiya</td>
<td>Senior Consultant</td>
</tr>
<tr>
<td>Dr. P. L. Yadav</td>
<td>Senior Consultant</td>
</tr>
<tr>
<td>Shri Jaya Raj</td>
<td>Senior Consultant</td>
</tr>
<tr>
<td>Shri Rajesh Singh</td>
<td>Consultant</td>
</tr>
</tbody>
</table>

### EXPERT COMMITTEE

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. P. G. Adsule</td>
<td>Director, National Research Center for Grapes, Post Bag No. 3, Solapur Road, Pune-412307 (Maharashtra)</td>
</tr>
<tr>
<td>Dr. S. Laxmi Devi</td>
<td>Principal, Shaheed Rajguru College of Applied Sciences for Women, Jhilmil Colony, Vivek Vihar, New Delhi-110095</td>
</tr>
<tr>
<td>Mr. N. C. Saha</td>
<td>Professor &amp; Head, Laboratory Division Indian Institute of Packaging, E-2, M.I.D.C Area, Andheri-East, Mumbai-400093 (Maharashtra)</td>
</tr>
<tr>
<td>Dr. Nirankar Nath</td>
<td>Professor (Retd.), Dept. of Food Science and Tech., G.B.P.U.A &amp; T, Pantnagar-263145 (Uttaranchal)</td>
</tr>
<tr>
<td>Dr. M. K. Srivastava</td>
<td>GM, Mother Dairy Food Processing Ltd., Fruit and Vegetables Unit, Mangolpuri Indl Area, Phase-1, New Delhi-110083</td>
</tr>
<tr>
<td>Dr. B. P. Singh</td>
<td>Principal Scientist, Dept. of Horticulture Central Institute for Subtropical Horticulture, Post Office, Kakori, Lucknow-227107 (U.P)</td>
</tr>
<tr>
<td>Dr. (Mrs.) Charanjit Kaur</td>
<td>Senior Scientist, Division of Post Harvest Technology IARI, New Delhi-110012</td>
</tr>
<tr>
<td>Mr. K. M. Nath</td>
<td>Deputy Director, Fruit and Vegetable Preservation Dept. of Food Processing Industries (Govt. of India), New Delhi-110011</td>
</tr>
</tbody>
</table>

### IGNOU FACULTY (School of Agriculture)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. Panjib Singh</td>
<td>Former Director</td>
</tr>
<tr>
<td>Dr. M. C. Nair</td>
<td>Deputy Director, CEE</td>
</tr>
<tr>
<td>Dr. M. K. Salooja</td>
<td>Professor</td>
</tr>
<tr>
<td>Dr. Indrani Lahiri</td>
<td>Assistant Director</td>
</tr>
<tr>
<td>Dr. D. S. Khurdiya</td>
<td>Senior Consultant</td>
</tr>
<tr>
<td>Dr. P. L. Yadav</td>
<td>Senior Consultant</td>
</tr>
<tr>
<td>Shri Jaya Raj</td>
<td>Senior Consultant</td>
</tr>
<tr>
<td>Shri Rajesh Singh</td>
<td>Consultant</td>
</tr>
</tbody>
</table>

### PROGRAMME PREPARATION TEAM

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Writer</td>
<td>Mr. A. K. Srivastava, GM, Mother Dairy Food Processing Ltd., Fruit and Vegetables Unit, Mangolpuri Indl Area, Phase-1, New Delhi-110083</td>
</tr>
<tr>
<td>Editors</td>
<td>Dr. D. S. Khurdiya, Senior Consultant, SOA and Ms. Poonam Agarwal, Junior Consultant, SOA</td>
</tr>
<tr>
<td>Programme Director</td>
<td>Dr. B. S. Hansra, Director, SOA</td>
</tr>
<tr>
<td>Programme Coordinator</td>
<td>Dr. P. Vijayakumar, Lecturer, SOA</td>
</tr>
</tbody>
</table>

### PROJECT COORDINATION COMMITTEE

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Director</td>
<td>Dr. B. S. Hansra, Director, SOA</td>
</tr>
<tr>
<td>Project Coordinator</td>
<td>Dr. M. K. Salooja; and Dr. P. Vijayakumar, Lecturer, SOA</td>
</tr>
</tbody>
</table>

### MATERIAL PRODUCTION

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Rajiv Girdhar</td>
<td>Section Officer (Publications)</td>
</tr>
</tbody>
</table>
PROGRAMME INTRODUCTION

Fruits and vegetables have been a part and parcel of the life of human beings since time immemorial. The popularity of vegetarian food not only in India but also in western countries makes the fruits and vegetable sector more important now a days. India ranks second in world fruits and vegetable production but this huge potential is untapped. Lot of produce goes waste due to improper post harvest practices, unplanned marketing strategies of fresh produce and ignorance to value addition. If farmers, farm women, agricultural labourers and rural youth are made aware about the scientific, economic and entrepreneurial aspects of fresh produce marketing and their preservation/ processing, it will be a major boost to our food sector. To make people aware about value addition to fresh as well as processed products, the School of Agriculture, Indira Gandhi National Open University, New Delhi under the sponsorship of Ministry of Agriculture, Deptt. of Agriculture & Co-operation, Govt. of India has developed an awareness programme on “Value added products from fruits and vegetables”. In this programme nine modules including Introduction, Post Harvest Management, Factory Standards and Product Specifications, Processing and Value Addition, Quality Assurance, Packaging, Marketing of Fresh and Processed Fruits and Vegetable Products, Setting Up an Enterprise, Institutional Support to the Entrepreneurs have been developed along with audio visual films on various aspects of value addition to fruits and vegetables.
## CONTENT

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Introduction</td>
</tr>
<tr>
<td>2.0</td>
<td>Objectives</td>
</tr>
<tr>
<td>3.0</td>
<td>Marketing of Fresh Fruit and Vegetable and their Processed Products</td>
</tr>
<tr>
<td>3.1</td>
<td>Marketing Commodities</td>
</tr>
<tr>
<td>3.1.1</td>
<td>Fresh Fruit and Vegetables</td>
</tr>
<tr>
<td>3.1.2</td>
<td>Processed Fruit and Vegetable Products</td>
</tr>
<tr>
<td>3.2</td>
<td>Why Marketing</td>
</tr>
<tr>
<td>3.2.1</td>
<td>Income and employment generation for rural Youth</td>
</tr>
<tr>
<td>3.2.2</td>
<td>Rural Employment</td>
</tr>
<tr>
<td>3.2.3</td>
<td>Higher Income Generation</td>
</tr>
<tr>
<td>3.3</td>
<td>Must for Marketing - Effective and Efficient Post-Harvest Tools</td>
</tr>
<tr>
<td>3.4</td>
<td>Methods of Marketing</td>
</tr>
<tr>
<td>3.4.1</td>
<td>What is Market</td>
</tr>
<tr>
<td>3.4.2</td>
<td>Marketing</td>
</tr>
<tr>
<td>3.4.3</td>
<td>Steps of Marketing</td>
</tr>
<tr>
<td>3.4.4</td>
<td>Collective Marketing</td>
</tr>
<tr>
<td>3.4.5</td>
<td>Value Addition and Exports</td>
</tr>
<tr>
<td>3.5</td>
<td>Channels’ of Distribution</td>
</tr>
<tr>
<td>3.6</td>
<td>Function of Wholesalers and Retailers</td>
</tr>
<tr>
<td>4.0</td>
<td>Let Us Sum Up</td>
</tr>
<tr>
<td>5.0</td>
<td>Self Assessment Questions and Answers</td>
</tr>
<tr>
<td>6.0</td>
<td>Activities</td>
</tr>
<tr>
<td>7.0</td>
<td>Assignments</td>
</tr>
<tr>
<td>8.0</td>
<td>Do’s and Don’ts</td>
</tr>
<tr>
<td>9.0</td>
<td>Key Words</td>
</tr>
</tbody>
</table>
1.0 INTRODUCTION

The popularity of vegetarian food not only in India but also in western countries makes the fruit and vegetable sector more important now a days. A well planned marketing strategy and adoption of better post harvest practices like sorting, grading, washing, trimming, attractive and protective packaging will help in increasing the sales realisation thus better income to the growers.

Three basics of marketing are assembling of produce, primary processing and distribution. Marketing systems and strategies for fresh fruit and vegetables and their processed products are different depending on their nature and perishability, which are discussed below:

Fresh Fruit and Vegetables

You know that fresh fruit and vegetables are highly perishable in nature and if not sold within a specified period after harvesting, can result in to very low or even zero realisation. Hence the marketing of fresh fruit and vegetables needs to be planned well before harvesting of the produce.

Successfully marketing of fresh horticultural produce begins with production of a quality product and requires careful attention to the details involved in post harvest handling which protects quality, nutritive value, economic value and ensures food safety. By know you might know about various post harvest handling methods. Most suitable methods depending upon need of commodity, cost of technology, available market outlets and the desired level of involvement of the marketer can be chosen to protect the value of fresh produce and improve returns.

![Fig. 1: Produce ready for market](image)

Litchis harvested with stem and leaves

Trimmed cauliflowers ready for market
Processed Fruit and Vegetable Products

There are several methods of preservation of fruits and vegetables into many value added products which has already been discussed in module 4.

Is it possible to sell a processed product without any brand name? No, it is quite impossible. The major trade of processed products is in the hands of well-organised sector where branding plays the important role. Marketing process of processed fruit and vegetable products is similar to any other fast moving consumable goods (FMCG). The manufacturing units either market their products through their own marketing infrastructure or small manufacturing unit which can not afford the independent marketing infrastructure appoint the companies having expertise in marketing as their sole selling agents. The products manufactured by processors are marketed by different companies.

2.0 OBJECTIVES

After studying this unit you will be able to:

- prepare the fresh fruit and vegetables for market;
- minimize the post harvest losses (National loss) and realize more money by marketing of fresh fruit and vegetables;
- create awareness among the farmers for collective marketing of farm produce to maximize the farmer’s share in consumer price;
- explain the process for value addition in fresh fruit and vegetable products by processing them in order to match the market demand; and
- describe the process of direct linkage of producer and consumer (Marketing Channel).

3.0 MARKETING OF FRESH FRUIT AND VEGETABLE AND THEIR PROCESSED PRODUCTS

3.1 Marketing Commodities

3.1.1 Fresh Fruits and Vegetables

At present major trade of fresh fruit and vegetables is unorganised and operates through commission agents of state government regulated wholesale markets. The grower voluntarily consigns his produce to a commission agent who then auctions it on the grower’s behalf, retaining only the legally specified commission. Most of the regulated markets have earmarked separate shades for farmers. *Apni Mandies*
has also been established at certain towns situated near production areas, where farmers can bring and sell their own produce directly to end consumers.

Transformation of fresh fruit and vegetable marketing from unorganised to organised sector is still in its infancy in our country and in this case the farmers can sell their produce directly to consumers through various NGO’s, Public limited companies like Mother Dairy Fruit and Vegetable Unit’s SAFAL outlets in Delhi.

3.1.2 Processed Fruit and Vegetable Products
Processed products are sold to end consumers through well-organised marketing infrastructure involving company owned depots, distributors, wholesalers and retailers like other factory made FMCG products. Brand establishment and brand image in market plays an important role in case of processed fruit and vegetable products. Some of the well-established brands in the market are KISSAN, SAFAL and TOPS etc.

3.2 Why Marketing
Presently the post harvest losses in fresh fruit and vegetables are estimated around 30% which may be attributed to poor post harvest and marketing practices. These practices include sorting, grading, packaging, transport etc. as well as multi stage marketing which results in to delay in the reaching the fresh fruit and vegetables to the ultimate consumer. These delay further results in the value reduction. Efficient and effective post harvest handling and well planned marketing of fresh fruit and vegetables have direct positive impact on the final realization of fresh fruit and vegetables.

3.2.1 Income and employment generation for rural youth: Meaning and Methods
The most burning issue of unemployment can be resolved to a greater extent if the rural youth can be motivated to get involved in the progressive farming and
marketing of fresh fruit and vegetables rather than running towards cities. Growing and marketing of quality fresh fruit and vegetables can generate income much better than what they earn in the cities.

3.2.2 Rural Employment
Growing and marketing of fresh fruit and vegetables can generate employment for rural youth but there are certain limitations which include:
- Small average land holding - 2.5 Hectare/ Farmer
- Mechanization is economically unviable for small land holdings.

Whereas, vegetable cultivation is a labour intensive programme involving:
- Field preparation
- Field sowing
- Seeding/planting
- Irrigation
- Harvesting etc. which can generate employment.

Fig. 4: Rural employment through progressive farming and marketing
3.2.3  Higher Income Generation

Fruit and vegetable cultivation is more income-generating source as compare to any other crop per unit area to the farmers. You will better understand this by the table given below:

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Production/Acre in Metric tonnes</th>
<th>Avg. Gross Income Rs./Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit and vegetable</td>
<td>10.00</td>
<td>40,000</td>
</tr>
<tr>
<td>Wheat</td>
<td>1.80</td>
<td>10,800</td>
</tr>
<tr>
<td>Mustard</td>
<td>0.80</td>
<td>12,000</td>
</tr>
</tbody>
</table>

3.3  Must for Marketing – Effective and Efficient Post Harvest Tools

Minimising post-harvest losses during harvesting to marketing would result in better realization to the farmers. You have already studied the prevention of post harvest losses in Module 2. The following tools may be adopted to minimise the post-harvest losses in fruit and vegetables:

1. Selection of right variety (season, location and crop specific)
2. Adoption of recommended agronomic and plant protection practices
3. Harvesting at right maturity stage
4. Handling of produce gently after harvesting at all the stages
5. Adopting suitable harvesting tools
   a. Cutter/ knife
   b. Mango nipper
   c. Use of crates/ plastic buckets etc.
6. Storage under shade after harvesting (do not expose to direct sun light)
7. Sorting/ grading at field level
8. Using wet jute cloth in case of leafy vegetables.
9. Use of proper packaging material for further transportation
   a. Plastic crates, wooden boxes, corrugated fibreboard cartons, gunny bags/ pally / bamboo basket etc.
10. Use of proper transport
    a. Fast moving vehicles
    b. Covered vehicles
    c. Refrigerated/insulated vehicles

3.4  Methods of marketing

3.4.1  What is Market?

Market is a place where sellers are situated and buyers come and exchange good for money at right place, right time, right quality, right quantity and right price.

i. Wholesale and retail fruit and vegetable markets i.e. Fruit and Vegetable Mandi and Retail Shop/Outlets.
3.4.2 Marketing

a. Identification of needs and wants of the customers and satisfy them in order that they want to i.e.
   - Quality
   - Quantity (Pack size)
   - Price
   - Delivery etc.

b. Following combination of basic elements needs to be considered for the formulation of effective marketing strategy which is called **Marketing Mix** or 4 P’s of marketing:
   i. Product – activities relating to the product to be offered
   ii. Price - activities relating to the price to be charged for the product
   iii. Place – activities relating to the distribution of the product, (Physical distribution & channel of distribution)
   iv. Promotion-activities relating to promotion (advertising, personal selling, sales promotion & publicity) of the product

3.4.3 Steps of Marketing

a. Identification of customers and their needs
   i. Product
   ii. Timings
   iii. Quality
   iv. Pack size etc.

**Fig. 6: A typical urban retail market**
b. Assessment of Market Size
   i. Quantity and value can be sold
   ii. Target market share

c. Production
   i. Production of right product
   ii. Market driven production no more supply driven marketing

d. Standardization and Grading
Standardization refers to process of setting certain standards for a commodity on the basis of its desired qualities. For e.g. AGMARK, BIS, FPO etc. Grading refers to the division of products into classes made up of units possessing similar features.
   i. Quality checking - based upon size, shape, colour etc. For e.g. Fancy, Class I, Class II etc.

e. Packaging
Packaging is the act of designing and producing the package for a product. A package is a wrapper or a container in which a product is enclosed. Packaging reduces the risk of spoilage, breakage etc. in the process of storage and transportation of the goods.

f. Branding
A brand is a name, sign, symbol, or design used to distinguish the product of one firm from others. Branding helps in creating a distinct image of the seller in the market. Example: SAFAL, KISSAN, MAGGI etc.

g. Pricing
Pricing is the process of fixing the price of a product. Manufacturer generally fixes prices carefully after looking into the following three factors:
   i. The cost of production
   ii. The demand for the product
   iii. The nature of competition

h. Transportation
Transportation refers to the physical movement of goods from the place of production to place of consumption. By carrying the goods to such places where they are needed, it creates place utility.

i. Storage and Warehousing
Storage is process of holding and preserving goods between the time of their purchase or production and the time of their sale. Warehouses facilitate the storage function.

j. Promotion
Promotion refers to all such activities of the manufacturer, like advertising, personal selling, sales promotion and publicity, which are intended to influence buyer behaviour.

k. Product Planning and Development
Product planning and development is concerned with anticipating customers’ need, developing new products and improving the existing products so as to meet expectations of customers.

Fig. 7: An excellent display of fresh fruit and vegetable at a organized retail store
1. Risk Taking
Marketing involves number of risks, which may be due to unforeseen circumstances. These risks could be minimized or avoided through intelligent planning. Insurance lessens the burden arising out of risk to some extent.

3.4.4 Collective Marketing
Collective marketing means to market the produce under one brand by a single agency while produced by several peoples/agencies for following reasons:
   i. To maximize the bargaining power
   ii. To maximize the return to producers
   iii. To minimize the cost of marketing
   iv. To minimize the cost of packaging and other logistics

The following methods may be adopted for collective marketing

a. Formation of Farmer’s Association or Society
   Associating like-minded farmers together and make an informal association that can be registered under society act later.

b. Formation of Self Help Groups (SHGs)
   A group of farmers may customize bye-laws with its specific objectives and procedures for functioning of the group.

The Farmer’s Association/ Society/ SHGs can take over the responsibilities of marketing the produce of member growers collectively besides helping them in arranging tangible and non-tangible agri-inputs and finance to them.

c. Marketing through NGOs
   NGO can act as a facilitator for creating the spirit of working together among the farmers and help them in motivating for collective marketing concept.
   i. Formation of producing company under company act
   ii. Formation of farmer’s cooperative under state cooperative act.

Fig. 8: Farmers associate for collective marketing
Fig. 9: Retailing of fresh and processed fruit and vegetable products
Some of the successful examples of collective marketing in India are
- Amul
- SAFAL
- Mahagrape
- Mahaorange
- Onifed

3.4.5 Value Addition to Fruit and Vegetable and Exports
Preservation of fruit and vegetables during the period of peak production when the prices are low and the quality is good is called value addition. Processing of fruit and vegetables is an important sector of our economy to:
- reduce post-harvest losses
- providing remunerative prices to farmers
- generating employment and
- earning foreign exchange.

At present only about 2% of annual production of fruits and vegetables is processed. There are various products, which can be manufactured from fruits and vegetables. The major processed items are fruit juices, fruit pulps, canned fruits and vegetables, jams, pickles, squashes, preserves and dehydrated vegetables. Fruit and vegetables processing industry is growing at the rate of about 10% per annum. Export of fruit and vegetable products is also growing at the rate of about 15% per annum. Largest item to export is mango pulp.

Fig. 10: A mechanized processing unit for pea freezing

Processed Fruit and Vegetables – Potential Products

i. Dried and preserved vegetables
ii. Fruit pulp and concentrates
iii. Pickles and chutney
iv. Jam, jelly and marmalades
v. Squash and syrup
vi. Ketchup and sauce
vii. Canned fruit and vegetables products
viii. Fruit juices, RTS beverages and concentrates
ix. Frozen peas

Export Market

What is Export Market
Export means marketing of products to other countries or trade between two countries.

Fresh Fruit and Vegetables
i. Grapes - Seedless
ii. Mangoes – Alphanso, Baganpalli etc.
iii. Apple
iv. Litchi
v. Sapota (Chickoo)
vi. Potatoes and Onions
vii. Okra (Bhindi)
viii. Gourds (Karela, Lauki, Chirchinda, Parwal)
ix. Green chilli
tax. Beans etc.

Potential Destinations
i. Europe – Grapes, Mango, Litchi
ii. UAE - Vegetables
iii. Sri Lanka – Onion, Potato other vegetables
iv. Middle East - All

Quality
All processed products are to manufacture as per specification laid down in Fruit Product Order (FPO). Quality specification varies from one country to another. Exporters have to meet out the quality specification of importing country.

Export Statistics – 2002-03

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Item</th>
<th>Qty in MT</th>
<th>Value in Rs. Crores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fresh Onion</td>
<td>588711.75</td>
<td>361.8</td>
</tr>
<tr>
<td>2.</td>
<td>Other Fresh Vegetables</td>
<td>183019.33</td>
<td>287.64</td>
</tr>
<tr>
<td>3.</td>
<td>Dried Nuts</td>
<td>7631.24</td>
<td>121.23</td>
</tr>
<tr>
<td>4.</td>
<td>Fresh Mangoes</td>
<td>38003.43</td>
<td>84.19</td>
</tr>
<tr>
<td>5.</td>
<td>Fresh Grapes</td>
<td>25680.62</td>
<td>110.15</td>
</tr>
<tr>
<td>6.</td>
<td>Other Fresh Fruits</td>
<td>90608.46</td>
<td>121.74</td>
</tr>
<tr>
<td>7.</td>
<td>Dried and Preserved Vegetables</td>
<td>216640.16</td>
<td>561.03</td>
</tr>
<tr>
<td>8.</td>
<td>Mango Pulp</td>
<td>96107.31</td>
<td>297.01</td>
</tr>
</tbody>
</table>
3. Pickles and Chutney
   56384.37  154.16
4. Other Processed Fruits and Vegetables
   54792.77  194.73
**Total Processed Fruits and Vegetables**
   423924.61 1206.93

*Source:* APEDA Export Statistics for Agro & Food Products from India 2002-03.

### 3.5 Channels’ of distribution

Various sources and intermediaries used by farmer to deliver fruit and vegetables to the end consumer are called channels of distribution. Following are channels of distribution for fresh fruit and vegetables:

**Fresh Produce**
1. Farmers to Village level commission agent
2. Farmers to *Taluka* town level wholesale *mandies*
3. Farmers to District level wholesale *mandies*
4. Farmers to Metros wholesale *mandies*
5. Farmers to Semi-wholesaler/ retailer/ consumer
   a. *Apni Mandi*
   b. *Kisan Mandi*
6. Farmers to Organizations/ processors
   a. Cooperative marketing
   b. Contract farming

**Processed Products**
1. Processor to Consumer (direct marketing)
2. Processor to Wholesaler to retailer to consumer
3. Processor to Organizations/institutions

### 3.6 Functions of the wholesaler and retailer

**Wholesaler** is an establishment or place of business primarily engaged in placing order on processors, receiving, storing and selling fruit and vegetables / products to retailers and institutions

**Retailer** takes physical possession of goods from wholesalers, maintain storage facilities, and keep the desired variety and quantity to supply to consumers.

### 4.0 LET US SUM UP

The module describes the marketing of fresh and processed fruit and vegetable products. It explains the importance of 4Ps, channel distributions and role of wholesalers, retailers.
5.0 ACTIVITIES

Activity – 1
Objective: To demonstrate preparation of fresh fruit and vegetable for market

Material: Any field of fresh fruit or vegetable, harvesting container, packaging materials (Plastic crate or corrugated fiberboard carton), tools for harvesting trimming, washing.

Method:
1. Harvest the fruit and vegetable at right stage of maturity.
2. Collect and keep harvested produce in shade
3. Trim the unwanted portion like excess leaves, stem etc.
4. Wash the freshly harvested produce in clean water and allow excess water to drain out before packaging.
5. Sort and grade harvested produce in to A and B grade depending upon size, colour, eye appeal, presence of attributes like mechanical damage, misshape, infected, diseased, under or over mature etc.
6. Pack both the grades separately in clean plastic crate or corrugated carton having perforations for air circulation.
7. Mark the package showing item, grade, and quantity.
8. Send to market for sale.

Activity – 2
Objective: Where and how a small farmer growing small quantity of fruit and vegetable should market his produce?

Material: 100 kg of fresh produce packed in plastic crate or carton segregated into two grades say A and B,

Method:
Following options can be adopted
A. Apni Mandi: Take the produce to any of the Apni Mandi of nearby town and sale the produce directly to the consumers. (This will generate best realization)

B. Village Market: Take the produce to the village market and sell to the local consumers directly. (This will generate Moderate Realization but lower than option A)

C. Cooperative: If a village cooperative exists nearby supply the produce to village cooperative for collective marketing (This will generate reasonably good margin but lower than option A and B).

D. Village Level Consolidator: Supply the Produce to the Local Commission agent who pools the produce of many farmers and sends to a whole sale mandi (This will generate the lowest realization)

E. Whole Sale Market: Send the produce to wholesale mandi to a known commission agent on shared freight basis if shared transport facility is available (This will generate realization less than options A, B and C but better then option D)
Q.1 Discuss the importance of marketing of fresh fruit and vegetables and their processed products.

Ans. Efficient processing and marketing of fresh fruit and vegetables and their processed products is very much important to reduce the post harvest losses estimated at 25-30% which is a national wastage. This will also provide extra income to farmers and will generate employment for youth of the rural areas.

Q.2 Explain the marketing flow in channel distribution.

Ans.

**Fresh Produce**

Customer

Farmer > Sub-Agent > Commission Agent > Wholesaler > Retailer

**Processed Products**

Customer

Farmer > Commission Agent > Processing Unit > Wholesale Distributor > Retailer

Q.3 Discuss the role of wholesalers and retailers.

Ans. Role of wholesalers includes placing order to processing units for various products, receive, store and distribute them to retailers. They purchase and sell quantities in bulk and do not cater the end consumers. Role of Retailers is to sell the products to the end consumers.

Q.4 How to minimize the post-harvest losses?

Ans. Post harvest losses can be minimized by adopting the suitable post harvest methods like proper packaging, temperature and humidity control, proper transport arrangement and timely marketing of fresh fruit and vegetables.

Q.5 What is the importance of post harvest handling in the preparation of fresh fruit and vegetables for market?

Ans. It results in better realization to the farmers.

Q.6 What are the various steps of marketing?

Ans. Various steps of marketing are:
a. Identification of customers and their needs
b. Assessment of market size
c. Production
d. Standardization and grading
e. Packaging
f. Branding
g. Pricing
h. Transportation
i. Storage and warehousing
j. Promotion of marketing activities
k. Product planning and development
l. Risk taking

Q.7 What do you understand by processed fruit and vegetables? Explain with examples.
Ans. When fresh fruit and vegetable are preserved / processed by using any of the preservation/processing methods for making different value added products like pickles, jams, sauces, ketchups, squashes, pulp, concentrates etc., they are known as processed products.

Q.8 What is collective Marketing? How small farmer can take advantage of it?
Ans. Collective marketing means to market the produce under one brand by a single agency while produced by several people/agencies.
Small farmers can take advantage of collective marketing by:
   a. Becoming member of farmer’s association/society/SHG’s.
   b. These associations can take responsibilities of marketing the farmer’s produce.
   c. They also arrange tangible and non-tangible agri-inputs and finance to member growers.

7.0 ASSIGNMENTS

1. Survey local market of your area and prepare a list of fresh fruit and vegetables and processed products, which are on sale.
2. What types of markets are in existence near your Village, Taluka, and District, describe them in brief.
3. List the commodities, which are generally preferred by the buyers in your area.
4. Survey your local market and find out the prices of some of fresh fruits and vegetables and processed products.

8.0 DO’S AND DON’TS

<table>
<thead>
<tr>
<th>DO’S</th>
<th>DON’TS</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Always consider the needs and requirements of the market for</td>
<td>1. Do not pack good and inferior produce in same pack this will</td>
</tr>
</tbody>
</table>
your produce (customer preference for size/colour/stage of maturity) result in poor realization in the auction / whole sale market

- Keep the fresh fruit and vegetables always in shade after harvesting and covered with wet jute cloth during summers to stop moisture loss
- Use stackable plastic crates as field containers during harvest – while initially expensive, these are durable, reusable and easily cleaned
- Handle the produce very carefully during harvesting
- Always wash the fresh F&V in clean water only wherever required
- Always ensure that processed F&V products are placed in market after incubation test and well before the “best before” date printed on them

2. Don’t expose fresh fruit and vegetables to direct sun right from harvesting to sale to end consumer at any stage
3. Do not use containers with rough abrasive internal surfaces for collection of fresh and vegetable during harvesting and transportation
4. Do not pick up produce that has fallen onto the ground during harvesting.
6. Do not use dirty/contaminated water for washing of fresh fruit and vegetable
7. Do not place puff and those products nearing or after their “best before” date

9.0 KEY WORDS

<table>
<thead>
<tr>
<th>4 Ps</th>
<th>: Product, Price, Place and Promotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>F P O</td>
<td>: Fruit Products Order</td>
</tr>
<tr>
<td>APEDA</td>
<td>: Agricultural and Processed Food Products Export Development Authority</td>
</tr>
<tr>
<td>SHG</td>
<td>: Self Help Groups</td>
</tr>
<tr>
<td>Grading</td>
<td>: Separation of different sizes in to various grades</td>
</tr>
<tr>
<td>Sorting</td>
<td>: Removal of inferior produce from good ones</td>
</tr>
<tr>
<td>Preservation</td>
<td>: Extension of shelf-life by various methods e.g. drying, freezing, pickling etc.</td>
</tr>
<tr>
<td>Apni mandi</td>
<td>: also known as ‘farmer’s market’. In this mandi farmers get direct access to consumers by eliminating middlemen</td>
</tr>
<tr>
<td>Warehouse</td>
<td>: A building specially designed for storage of goods</td>
</tr>
<tr>
<td>Cooperative marketing:</td>
<td>The process by which independent producers, wholesalers, retailers, consumers, or combinations of them act collectively in buying or selling or both</td>
</tr>
<tr>
<td>Contract farming:</td>
<td>Farmers grow selected crops under a buy back agreement with an agency engaged in trading or processing.</td>
</tr>
</tbody>
</table>