



सत्यमेव जयते

PACKAGING OF SOYA CHUNKS



AATMANIRBHAR BHARAT

**PM Formalisation of Micro Food Processing
Enterprises Scheme (PM FME Scheme)**

Shelf Life of Product:

- Food storage is defined as storage of given food item over particular period of time in edible state, however in general refers to food stored for a long period time.
- Shelf life is defined in two ways:
 - “Best if used by”: Length of time food retains most of its original taste and nutrition.
 - “Life sustaining”: Length of time foods can be stored and still be edible.



Shelf Life of Product:

- As the textured vegetable protein is extruded.
- Change in the structure of the soy protein results in a fibrous spongy matrix that is similar in texture to meat.
- In their dehydrated form, the soya chunks have a shelf life of longer than a year.
- It must be stored at cool, dark and dry place..
- it will spoil within several days after being hydrated.



Shelf Life of Product:

The shelf life of stored foodstuffs depends on the following 4 major criteria:

1. Temperatures

- ❑ Foods kept at room temperature or colder (24 °C or lower) can be nutritious and edible for longer than commonly assumed.

2. Humidity:

- ❑ The explanation for dehydrated or freeze-dried long-term food preservation is to remove moisture.
- ❑ Too much moisture fosters a climate in which microorganisms can flourish cause degradation of food.



Shelf Life of Product:

3. Oxygen:

- Too much oxygen, especially in fats, vitamins, and food colours, can degrade food and encourage the growth of microorganisms.
- That is the explanation for the dry packaging of your own food items using oxygen absorbers.

4. Light:

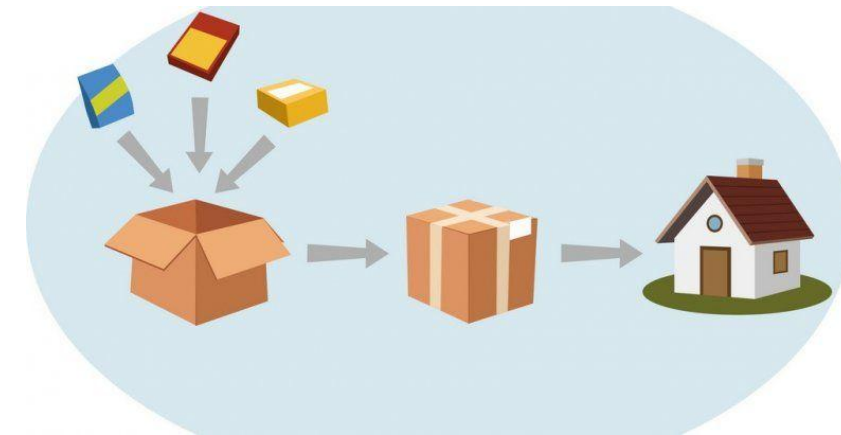
- Exposure to too much light will cause food to deteriorate.
- In specific, it influences the color of food, the lack of vitamins, fats and oils, and proteins.
- Maintain long-term food storage in places with low light with the longest shelf life.

Need for Packaging:

- The primary purpose of packaging is to protect its contents from any damage.
- packaging has an important role in keeping its contents and consumers safe.
- Packaging should contain important information about the product and its safety.
- Packaging counts as an important part of the product brand and marketing.
- Consumers are looking for fit-for-purpose packaging.

Need for Packaging:

- It also refers to the process of design, evaluation, and production of packages.
- While appropriate packaging is important to maintain the basic attributes of food (temperature, color, taste, texture, etc.), maintaining food safety is an important function of packaging.



FEATURES OF PACKAGING



Profitability

Consistency

Company reputation

Consumer expectation

Consumer convenience

FEATURES OF PACKAGING

Protect contamination

Maintain quality

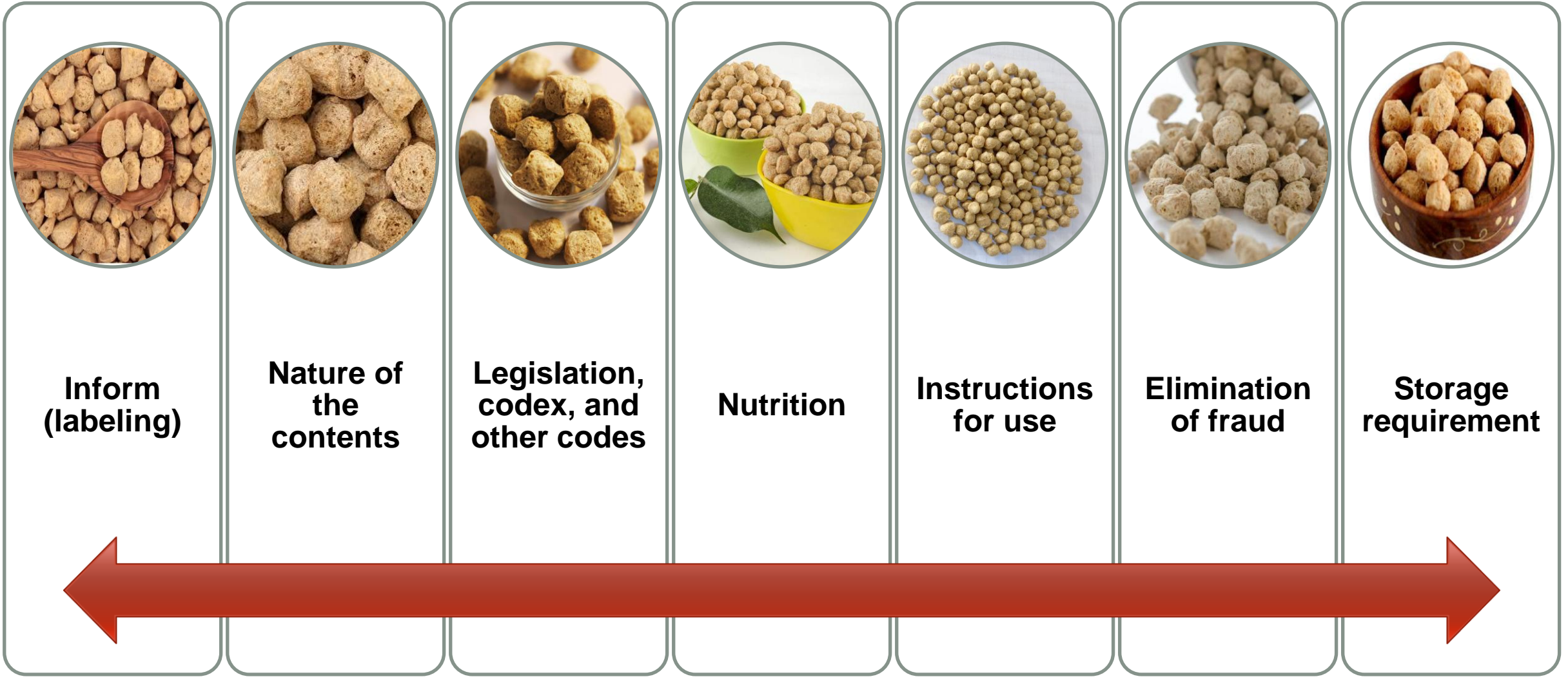
**Legislation (codex, local
legislation)**

Product consistency

Company reputation



FEATURES OF PACKAGING



TYPE OF PACKAGING

Primary packaging

- It refers to the product's immediate container.
- It is the packaging that most closely protects the product.
- It can also be referred to as retail or consumer packaging.
- E.g. tin cans, glass jar, plastics etc.



TYPE OF PACKAGING

Secondary Packaging

- Secondary packaging is the packaging that holds the individual units of package.
- Secondary packaging makes it easier for retailers to display and handle products.
- Secondary packaging may be removed from the item without changing the qualities or attributes of the good.
- Common examples include cardboard cartons, cardboard boxes, paperboard cartons, shrink-wrapped bundles Etc.



TYPES OF PACKAGING

Tertiary packaging

- It refers to the further packaging necessary for storage or transportation.
- It may contain a number of products within a cardboard box for easy transportation.
- Mostly curtain box are used for final packaging



CHARACTERISTICS OF PACKAGING MATERIAL

The material selected must have the following characteristics:

- Must meet tamper-resistance requirements
- Must not reactive with the product
- They must protect the preparation from environmental conditions
- Must be non-toxic
- Must not impart odor/taste to the product
- Must be approved by government body.



MATERIAL OF PACKAGING

Wood, cardboard, and papers

- Products derived from wood are widely used in the packaging of soya chunks in the form of paper and cardboard.
- Paper is a very cheap, lightweight product with excellent printing capacity.
- Although it is very sensitive to moisture.
- it can be corrected with a combination of paper and other materials such as plastic or paraffin.
- Cardboard is a material made up of several superimposed layers of paper, making it thicker, harder, and more resistant than paper.



MATERIAL OF PACKAGING

Plastic material for packaging

The printed flexible packets are generally laminates of various compositions. Some of the commonly used laminates are:

- Polyester/metallised polyester/LDPE
- BOPP/LDPE
- BOPP/metallised polyester/LDPE
- Polyester/Al foil/LDPE



MATERIAL OF PACKAGING

Quality considerations during packing

Quality control of packed products is the last time the product is checked before reaching the customer.

Documented checking of the packages entails:

- Weight of the package
- Weight of the spices
- Arrangement of the packages
- Uniformity
- Damage to the product
- Defects; and Moisture content.



PACKAGING MACHINE

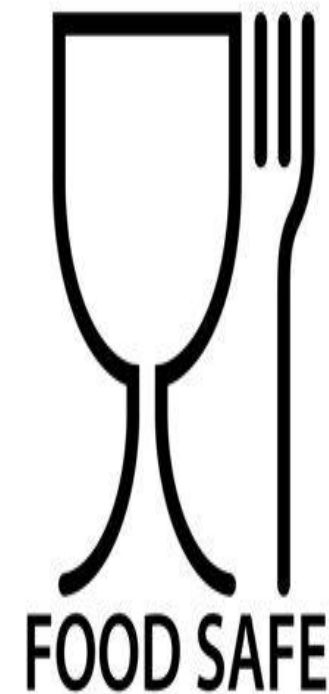
Automatic weighing and packaging machine

This is automatic machine used for weighing and packaging of soya nuggets according to market demand.



THE DRIVING FORCE RESPONSIBLE FOR THE PACKAGING INDUSTRY GROWTH

- The aging of the population worldwide
- The movement towards smaller families
- The growing customer demand for convenience
- Growing awareness of health among consumers
- The trend of increasingly 'on-the-go' lifestyles.



FSSAI LABELLING REQUIREMENTS

1. Name of the Food
2. List of Ingredients
3. Nutritional information
4. Declaration Non-Vegetarian or Vegetarian
5. Information regarding food additives
6. Addition of colors and flavors
7. Net quantity
8. Name and complete address of the manufacturer
9. A lot no., Code no., and Batch number details
10. Date of manufacture or packing
11. Best before
12. Country of origin for imported food
13. Instructions for use shall be included in the label if necessary.



FOOD SAFETY AND STANDARDS (PACKAGING AND LABELLING) REGULATIONS, 2011

- Every container in which any fruit product is packed shall be so sealed that it cannot be opened without destroying the licensing number and the special identification mark of the manufacture to be displayed on the top or neck of the bottle.
- For Canned fruits, juices and vegetables, sanitary top cans made up of suitable kind of tin plates shall be used.



FOOD SAFETY AND STANDARDS (PACKAGING AND LABELLING) REGULATIONS, 2011

- For Bottled fruits, juices and vegetables, only bottles/ jars capable of giving hermetic seal shall be used.
- Juices, squashes, crush, cordials, syrups, barley waters and other beverages shall be packed in clean bottles securely sealed.
- These products when frozen and sold in the form of ice shall be packed in suitable cartons. Juices and Pulpes may be packed in wooden barrels when sulphated.



FOOD SAFETY AND STANDARDS (PACKAGING AND LABELLING) REGULATIONS, 2011



- For packing Preserves, Jams, Jellies, and Marmalades, new cans, clean jars, new canisters, bottles, chinaware jars, and Aluminium containers may be used and it shall be securely sealed.
- For Pickles, clean bottles, jars, wooden casks, tin containers covered from inside with polythene lining of 250 gauge or suitable lacquered cans shall be used.

FOOD SAFETY AND STANDARDS (PACKAGING AND LABELLING) REGULATIONS, 2011



- For Tomato Ketchups and Sauces, clean bottles shall be used. If acidity does not exceed 0.5% as acetic acid, open top sanitary cans may also be used.
- Candied fruits and peels and dried fruits and vegetables can be packed in paper bags, cardboard or wooden boxes, new tins, bottles, jars, aluminium and other suitable approved containers.
- Fruits and Vegetable products can also be packed in aseptic and flexible packaging material having good grade quality conforming to the standards laid down by BIS.

PM-FME Scheme

The objectives of the scheme are:

- Support for capital investment for up-gradation and formalization with registration for GST, FSSAI hygiene standards and Udyog Aadhar;
- Capacity building through skill training, imparting technical knowledge on food safety, standards & hygiene and quality improvement;
- Hand holding support for preparation of DPR, availing bank loan and up-gradation;
- Support to Farmer Producer Organizations (FPOs), Self Help Groups (SHGs), producers cooperatives for capital investment, common infrastructure and support branding and marketing.
- <https://mofpi.nic.in/pmfme/docs/SchemeBrochure1.pdf>