

PACKAGING OF CANNED MUSHROOM



AATMANIRBHAR BHARAT

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

INTRODUCTION

Shelf Life of Product:

- Foods stored at 50°F to 60°F (which is optimal) will last longer than foods stored at higher temperatures.
- Heat absolutely destroys food and its nutritional value.
- Too much moisture promotes an atmosphere where microorganisms can grow.
- Too much oxygen can deteriorate foods and promote the growth of microorganisms.
- Exposure to too much light can cause deterioration of foods.
- Most expiration dates on canned Mushrooms can range from 1 to 4 years.



PACKAGING

- It's not possible to imagine food without a packet!
- Food packaging is everywhere. Being such a large industry, packaging has its own principles, technology, advantages and disadvantages, processes, toxic effects and cost.
- Packaging which used to be a mere necessity few decades back has now turned into an art and a science.



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.



PRODUCT DESCRIPTION

- Mushroom, a fungus fruit body, is considered a delicious food all over the world because of its taste aroma and structure.
- It is full of nutrients, low in calories, high in proteins, Vitamins, Minerals and a rich source of folic acid.
- Canned mushrooms have the same nutritional content as fresh mushrooms.
- However, the added sodium from the canning brine (saltwater) is something to consider if you are trying to limit how much sodium you have.



PRODUCT DESCRIPTION

- The phosphorus in canned mushrooms helps red cells deliver oxygen and may give you more energy.
- Help give you stronger bones and healthier teeth.
- Although bone health is primarily related to calcium, minerals such as phosphorus are also important to supporting healthy bones.
- Mushrooms contain a fair amount of phosphorus to promote greater bone and teeth health.
- Improve your digestion. The fiber in canned mushrooms contributes to a healthy digestive system.



Need for Packaging:

- Suitable transportation
- Hygiene
- Content stability.
- Protection from any environmental factors
- Acceptability of the pack to the customer.
- Regulatory, legal, and quality issues.



FEATURE OF PACKAGING

Profitability

Consistency

Company reputation

Consumer expectation

Consumer convenience



FEATURES OF PACKAGING

Protect
contamination

Maintain quality

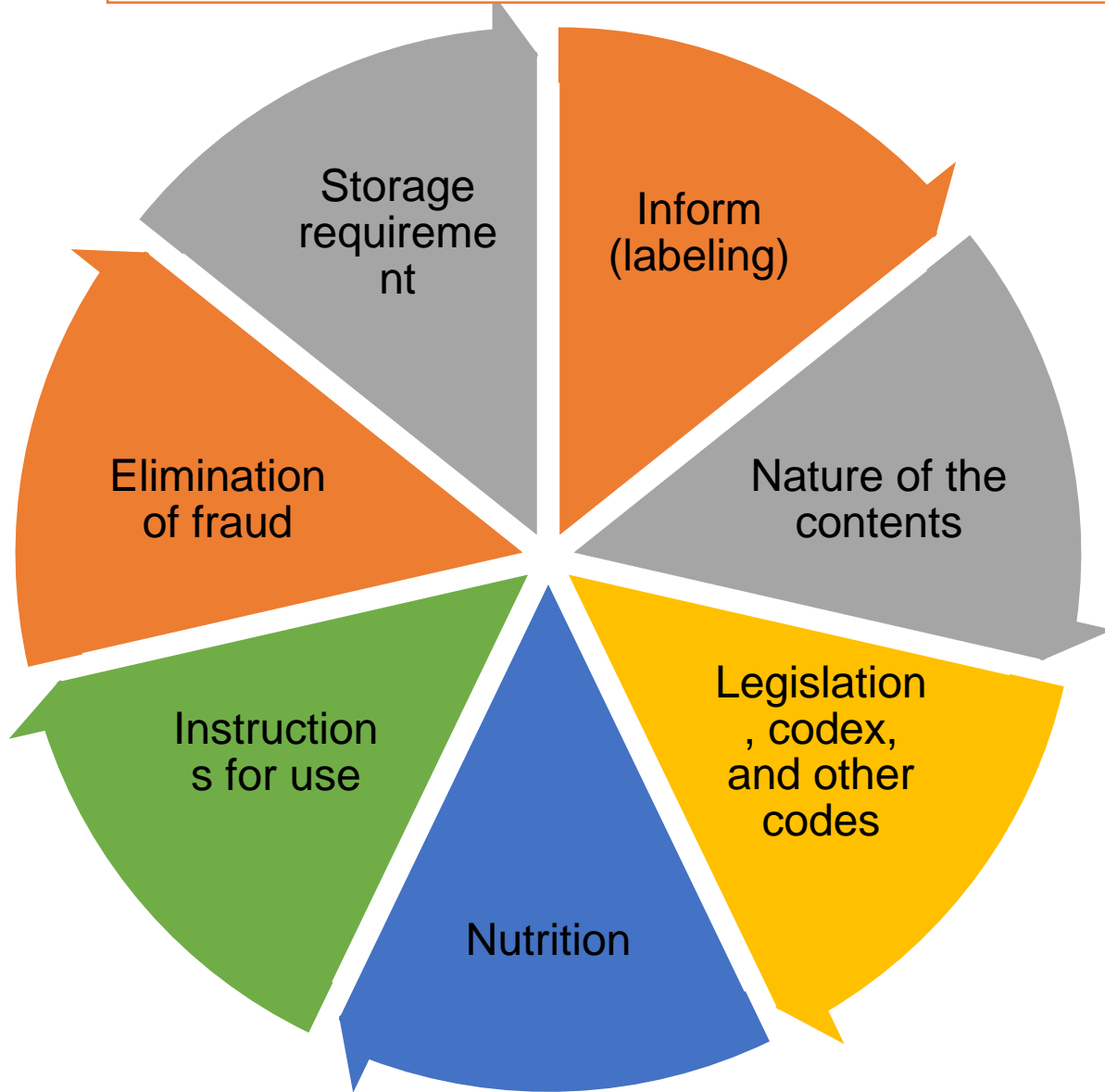
Legislation
(codex, local
legislation)

Product
consistency

Company
reputation



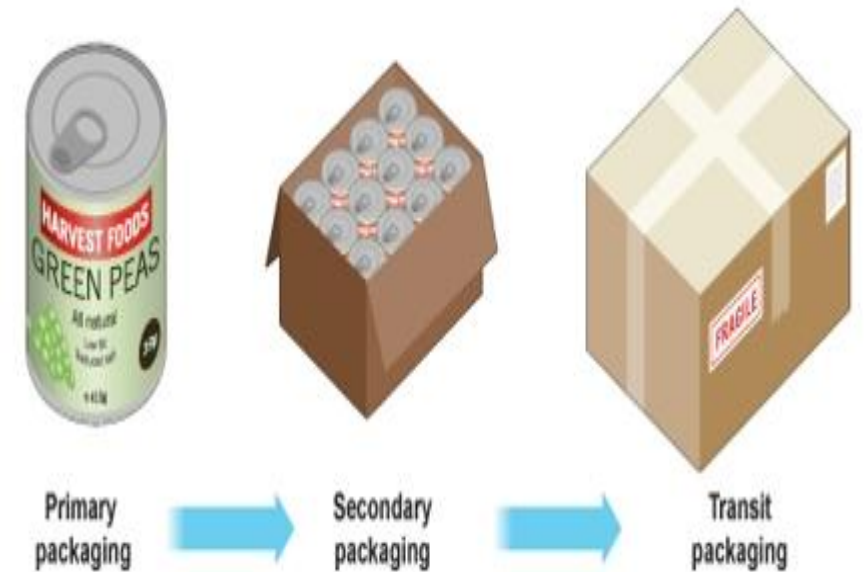
FEATURES OF PACKAGING



TYPES 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



Cont...

TYPES OF PACKAGING

Glass Bottle for Primary Packaging

- Gradually packed in glass bottles under different brand names appeared in the market, and became popular.
- The trend started in Maharashtra and Gujarat. They looked hygienic and appealed to the brand conscious upper class.



TYPES OF PACKAGING

Containers for Primary Packaging of canned Mushroom

Both tin and glass containers are used in the canning industry, but tin containers are preferred.

Tin containers

- Tin cans are made of thin steel plates of low carbon content.
- it is lightly coated on both sides with tin metal.
- coat the inside of the can with some material (lacquer) that prevents discoloration but does not affect the flavor or wholesomeness of the contents.
- This process is known as "lacquering".



TYPES OF PACKAGING

Container Types used for canning the mushroom

➤ Cylindrical Shape 2-Piece Aluminum Containers Depicting Double Seams.

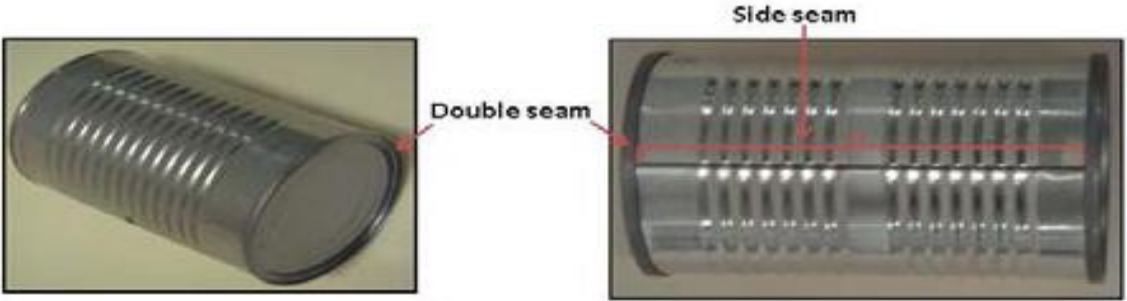


➤ Low Profile Rectangular Shape 2-Piece Aluminum Containers

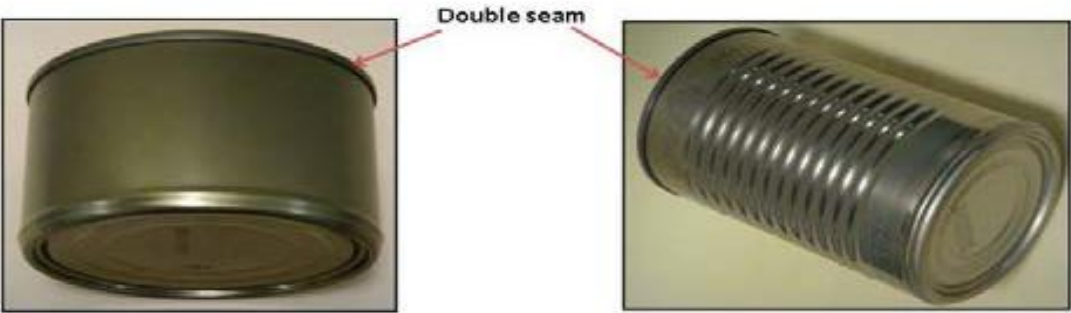


TYPES OF PACKAGING

➤ **Cylindrical Shape 2-Piece Steel Containers with a Double Seam.**



➤ **Cylindrical Shape 2-Piece Steel Containers**



SPOILAGE OF CANNED PRODUCTS

- **Soft Swell:** A can that is bulged on both ends, but not so tightly that the ends can't be pushed in somewhat with a thumb press.
- **Hard Swell:** A can that is so tightly bulged on both ends that the ends can't be pressed in.
- **Flipper:** A can whose end normally looks flat, but "flips out" when struck sharply on one end.
- **Springer:** A can with one end bulged out. With sufficient pressure, this end will flip in, but the other end will flip out.
- **Leaker:** A can with a crack or hole in the container that has caused leakage.

SPOILAGE OF CANNED PRODUCTS



TYPES OF PACKAGING

Secondary Packaging

- Secondary packaging is the packaging that holds the individual units of cans of Mushrooms.
- 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 cardboard boxes are used for final packaging



PACKAGING MACHINERY



Can Washing Machine:



Can Filling Machine

PACKAGING MACHINERY



Can Sterilizer Machine



Can Seamer

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.

LABELLING OF CANNED MUSHROOM



Barcode

Best before

Company Logo

License information

Product information and ingredient

Net weight

Instructions

Name and complete address of the manufacturer

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

2.1: Packaging

2.1.1: General Requirements

1. A utensil or container made of the following materials or metals, when used in the preparation, packaging and storing of food shall be deemed to render it unfit for human consumption:—
 - a) Containers which are rusty;
 - b) Enameled containers which have become chipped and rusty;
 - c) Copper or brass containers which are not properly tinned
 - d) Containers made of Aluminium not conforming in chemical composition to IS:20 specification for Cast Aluminium & Aluminium Alloy for utensils or IS:21 specification for Wrought Aluminium and Aluminium Alloy for utensils.

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

2.1: Packaging

3. General packaging requirements for Canned products,

- i. All containers shall be securely packed and sealed.
- ii. The exterior of the cans shall be free from major dents, rust, perforations and seam distortions.
- iii. Cans shall be free from leaks.

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>

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