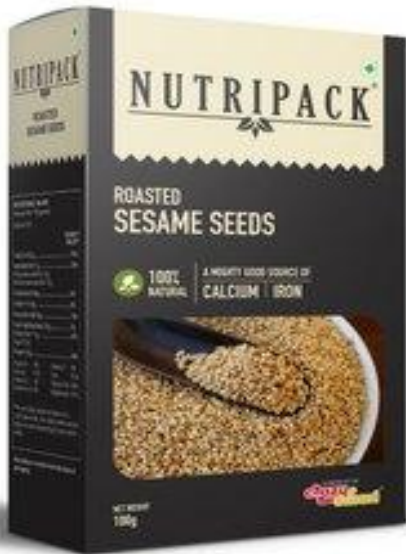


PACKAGING TECHNOLOGY OF SESAME SEEDS



SESAME SEED PACKAGING



INTRODUCTION

- ✓ Sesame seed is considered to be the oldest Oilseed crop known to humanity.
- ✓ The genus has many species, and most are wild. Most wild species of the genus *Sesamum* are native to sub-Saharan Africa. *S. indicum*, the cultivated type, originated in India.

✓ Botanical Name : *Sesamum indicum* L.

✓ Common Name - Til



INTRODUCTION

- ✓ The historic origin of sesame was favored by its ability to grow in areas that do not support the growth of other crops.
- ✓ It is also a robust crop that needs little farming support—it grows in drought conditions, in high heat, with residual moisture in soil after monsoons are gone or even when rains fail or when rains are excessive.
- ✓ It was a crop that could be grown by subsistence farmers at the edge of deserts, where no other crops grow. Sesame has been called a survivor crop.

PACKAGING

- Packaging is the technology of enclosing or protecting products for distribution, storage, sale and use.
- Packaging also refers to the process of design, evaluation and production of packages.
- Packaging can be described as a coordinated system of preparing goods for transport, warehousing, logistics, sale and use.

PACKAGING

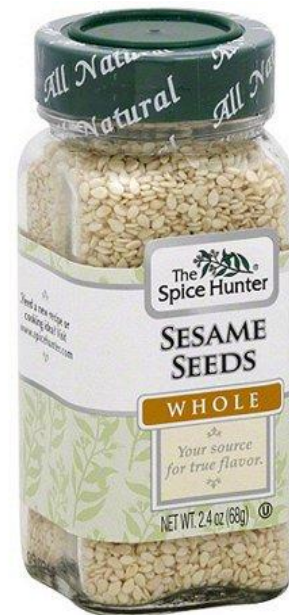
- ✓ Without packaging, materials handling would be a messy, inefficient and costly exercise and modern consumer marketing would be virtually impossible.
- ✓ Packaging is an important part of food manufacturing process. It protect the food products from physical ,chemical, biological damages.

NEED OF PACKAGING

- **Contaminant:** prevent the seeds from air contamination .
- **Protection:** from water vapors, harmful gases present in the air, dust, from predators like rats, worms, micro-organisms.
- **Communication:** Packaging contains a lot of information such name of its manufacturer, product name, terms and uses, date of manufacturing, best before. nutritional information thus helping the consumer to be more informed.

TYPES OF PACKAGING

- ✓ **PRIMARY PACKAGING** : Primary package are those package which directly came into contact with food products. It provides first or initial layer of protection to the food products.
- ✓ Examples of primary packaging includes Metal cans, cotton bags, jute bags, paperboard cartons, glass bottles and plastic pouches.



TYPES OF PACKAGING

- ✓ **SECONDARY PACKAGE** : Secondary package are those package which surrounds or contains the primary package. Ex. Corrugated case, Boxes
- ✓ **TERTIARY PACKAGE** : It contains number of secondary package together. Mainly used for bulk handling of food products.



MATERIALS OF PACKAGING

1. Paper Bags (barrier coated)

2. Film Bags (barrier coated)

3. Jute Bags

4. PP Woven Bags

5. Cotton Bags

6. Metal Cans
(sesame oil)



SESAME SEED PRODUCTS

➤ Sesame oil

- ✓ It is an edible Vegetable Oil derived from sesame seeds.
- ✓ Besides being used as a cooking oil.
- ✓ It is used as a flavor enhancer in many cuisines, having a distinctive nutty aroma and taste.



SESAME SEED PRODUCTS

- ✓ Worldwide mass modern production is limited due to the inefficient manual harvesting process required to extract the oil.
- ✓ In Akkadian language it is called as Ellu



SESAME SEED PRODUCTS

- **Sesame oil is composed of the following fatty acids :**
 - ✓ linoleic acid (41% of total)
 - ✓ oleic acid (39%)
 - ✓ palmitic acid (8%)
 - ✓ stearic acid (5%)

SESAME SEED PRODUCTS

- The only essential nutrient having significant content in sesame oil is vitamin K, providing 17% of the Daily Value per 100 grams (ml) consumed supplying 884 calories.
- For fats, sesame oil is approximately equal in monounsaturated fat ([oleic acid](#), 40% of total) and polyunsaturated fat ([linoleic acid](#), 42% of total), together accounting for 80% of the total fat content .
- The remaining oil content is primarily the saturated fat, palmitic acid.

SESAME SEED PRODUCTS

- **Industrial uses of Sesame seed Oil :**
 - ✓ In industry, sesame oil may be used as a solvent in injected drugs or intravenous drip solutions, a cosmetics carrier oil, coating stored grains to prevent weevil attacks.
 - ✓ The oil also has synergy with some insecticides.
 - ✓ Low-grade oil is used locally in soaps, paints, lubricants, and illuminants.

SESAME SEED PRODUCTS

- **Allergy from Sesame Seed Oil:**
- ✓ As with numerous seed and nut foods, sesame oil may produce an allergic reaction, although the incidence of this effect is rare at approximately 0.1% of the population.
- ✓ Reports of sesame allergy are growing in developed countries during the 21st century, with the allergic mechanism from oil exposure expressed as contact dermatitis , possibly resulting from hypersensitivity to lignin -like compounds.

SESAME SEEDS – PACKAGING PROCESSING

- Seed processing plant is designed based on the characteristics of seed grain and impurities present in it, which need to be separated
- Capacity of Plant is known by the capacity of the seed cleaner which is the basic machine in the seed processing plant.

SESAME SEEDS – PACKAGING PROCESSING

- Other machines, which work on the principle of separating the material, based on difference in characteristics of good seed and impurities are included in the plant.



PACKAGING REQUIREMENTS

- Absolutely leak-proof and prevent contamination

- Be hygienic and safe

- Economical, easy to use and dispose

- Process, printing options, display etc.

- Satisfy legislation requirement

PACKAGING MACHINE



SOME OTHER METHODS

➤ MODIFIED ATMOSPHERE PACKAGING UNIT:

- **MAP can be defined as packaging of food items where atmosphere inside the packet has been modified to increase the shelf life of food products. It involves active modification or passive modification.**
- **In active modification air is displaced with a controlled, desired mixture of gases, and the process is called as gas flushing.**
- **Passive modification occurs due to respiration and the metabolism of microorganisms associated with the food.**

PACKAGING REQUIREMENTS AS PER FSSAI

PACKAGING REQUIREMENTS AS PER FSSAI

The Label Must carry

1. Name of the product
2. Name and address of manufacturer
3. Batch number
4. Date or month of manufacturer
5. Net weight of the contents (in gram or kilogram)
6. List of ingredients



PACKAGING REQUIREMENTS AS PER FSSAI

7. FSSAI license number
8. Vegetarian mark (green dot)
9. MRP (in Rs)
10. The words “Best before” (month and year to be indicated)
11. Instructions for storage and use
12. Nutritional information
13. Customer-care details



Nutritional Facts* Approximate Nutritional value per 100 g	
Energy or Calories	880 Kcal
Protein	0 g
Fat	0 g
Saturated Fatty Acids (SAFA)*	15 g
Unsaturated Fatty Acids	83 g
Monounsaturated Fatty Acids (MUFA)*	40 g
Polyunsaturated Fatty Acids (PUFA)*	43 g
Trans Fatty Acids	0 g
Omega 3 Fatty Acids (PUFA)*	300 mg
Omega 6 Fatty Acids (PUFA)*	42.5 g
Omega 9 Fatty Acids (MUFA)*	40 g
Sterol (β-Sitosterol)	525 mg
Total sterols	635 mg
Sesamin	950 mg
Vitamin E	3.2 mg
Sugar	0 g
Carbohydrate	0 g
Sodium	0 g

Ingredient: Sesame Oil, Permitted Antioxidant (E - 319)
*SAFA, MUFA, PUFA Vary from season to season & also Region / Crop of the seeds.

8 901468 116963
A Product of India

Customer care no. :
180038701044 (Toll Free)
Website : www.pitambari.com
BEST BEFORE 12 MONTHS
FROM MANUFACTURE

Saptashakti Sesame Oil
Marketed by : **Pitambari Products Pvt. Ltd.**
3rd Floor, Hemendra CHS, Gokhale Road,
Thane - 400 602, Maharashtra, India.
Manufactured by : **Pitambari Products Pvt. Ltd.**
Arvind Bros. Compound, Digha,
Navi Mumbai - 400 708, Maharashtra, India.
fssai Lic No. : 11512013000843
E- mail : agro@pitambari.com

MRP : ₹ 3,100/-
(Incl. of all taxes)
Batch No. : A-50-18-19
Mfd. Date : july 19
Net Qty. at 30° C : 15 Kg (16.484 L)

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