



POPULAR SCIENCE ARTICLE

Food Packaging and Labelling: How FSSAI Rules Protect Food and Help Consumers Make Better Choices

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Received: 25 August 2026

Revised: 26 August 2026

Accepted: 29 August 2026

Published online: 05 September 2026

Article ID: SR01149

Citation: Singnale, P., Sasmal, D., Singh S. P., Khoisnam, N., Sangwan, U., Yadav, S., Gogoi, K., & Namchoom, I. (2026). Food Packaging and Labelling: How FSSAI Rules Protect Food and Help Consumers Make Better Choices. *Scientia Review*, 2(9), 4-7

Abstract

Food packaging and labelling play an important role in protecting food, maintaining its quality and communicating essential information to consumers. In India, these aspects are regulated by the Food Safety and Standards Authority of India (FSSAI) through the Food Safety and Standards (Packaging) Regulations, 2018 and the Food Safety and Standards (Labelling and Display) Regulations, 2020. This article discusses the role of food packaging, with particular attention to primary and secondary packaging and the suitability of food-contact materials. It also examines how packaging functions as a communication and marketing tool while remaining an important part of food safety. The article further describes the major information provided on food labels, including ingredients, nutritional information, allergen declarations, quantity, date-related information and FSSAI identification. Special attention is given to nutrition information and the emerging discussion around front-of-pack nutrition labelling (FOPNL), which aims to make important nutritional information easier to notice and understand. Overall, the article highlights how safe packaging and clear, accurate labelling work together to protect food and support informed consumer choices.

Keywords: FSSAI, Packaging, Labelling, Nutrition, FOPNL

Introduction

Food packaging and labelling have become an essential part of the modern food system. Packaging is no longer simply a material used to contain and protect food; it also preserves quality, supports transportation and storage, communicates important product information and influences consumer purchasing decisions. At the same time, food labels provide consumers with information about the identity, ingredients, nutritional characteristics and other important aspects of a product. In India, these functions are regulated by the Food Safety and Standards Authority of India (FSSAI) through the Food Safety and Standards (Packaging) Regulations, 2018 and the Food Safety and Standards (Labelling and Display) Regulations, 2020, together with subsequent amendments.

What is food packaging?

FSSAI's Food Safety and Standards (Packaging) Regulations, 2018 define a "package or container" as a pre-packaged box, bottle, casket, tin, barrel, case, pouch, receptacle, sack, bag, wrapper or similar item in which an article of

food is packed. FSSAI also defines "packaging material" to include materials such as cardboard, paper, glass, metal, plastic and multilayer packaging materials used for food products. An important concept in the FSSAI regulations is food grade. FSSAI defines food-grade material as material made from substances that are safe and suitable for their intended use and that should not endanger human health or cause an unacceptable change in the composition or organoleptic characteristics of food. This definition highlights an important point: a material cannot be considered suitable for food merely because it is strong, attractive or inexpensive. It must be appropriate for contact with food and must not compromise the safety or quality of the product.

Primary and secondary packaging: what is the difference?

Primary food packaging is the packaging material that comes into direct contact with the food. Examples include the plastic pouch containing biscuits, the bottle containing a beverage, the glass jar containing pickles or the inner wrapper surrounding a food product.

Because primary packaging directly interacts with food, its safety is particularly important. FSSAI defines primary food packaging specifically as packaging material in direct contact with food products.

Secondary food packaging, on the other hand, encloses the primary food package but does not come directly into contact with the food. A cardboard carton containing individually wrapped biscuits is a simple example. FSSAI defines secondary food packaging as packaging that encloses primary food packaging without coming into direct contact with the food.

The distinction is useful because different layers provide different kinds of protection. Primary packaging mainly creates a direct barrier between food and the outside environment, while secondary packaging can provide additional protection during handling, transportation, storage and display. FSSAI's Packaging Regulations specifically distinguish between primary and secondary food packaging.

Common materials used for food packaging

Food manufacturers use different materials depending on the nature of the product. Plastic, paper and paperboard, glass and metal are among the commonly used materials covered by the FSSAI packaging framework. Plastic is popular because it is light, flexible and convenient. Paper and paperboard are widely used for cartons, boxes and other forms of packaging. Glass is commonly used for products such as beverages, sauces, jams and pickles, while metal is widely used for cans and tins. The important point is not simply which material is used, but whether it is safe and suitable for its intended purpose. FSSAI's Packaging Regulations contain requirements for materials that come into contact with food.

Packaging as a marketing and communication tool

Although food safety is the first concern, packaging also plays an important role in marketing. Consumers often encounter a product first through its package rather than through direct interaction with the manufacturer. Colour, typography, shape, photographs, illustrations, product descriptions and other design elements can make one product stand out from another. This is the communication function of packaging. It can attract attention, create recognition and communicate the identity of a brand. A well-designed package can tell consumers whether a product is intended to be premium, traditional, convenient, healthy, economical or suitable for a particular occasion. But food packaging has a responsibility beyond persuasion. A consumer

should be able to obtain meaningful information from the package rather than being influenced only by its appearance. This is where food labelling becomes essential.

What should a food label contain?

FSSAI's Food Safety and Standards (Labelling and Display) Regulations, 2020 establish requirements for the labelling of pre-packaged foods. The regulations cover a range of information intended to help consumers identify and understand the food they are purchasing. Depending on the product and the applicable requirements, information on a food label can include the name of the food, ingredient information, nutritional information, allergen declarations, vegetarian or non-vegetarian declaration, net quantity, batch or lot identification, date-related information, best before information, manufacturer or other responsible food business details, storage or use instructions where applicable and the FSSAI licence number and logo.

The exact requirements vary according to the type of food and package and certain exemptions apply to very small packages and particular categories. Therefore, food businesses should consult the applicable regulation rather than treating a generic checklist as sufficient for every product. A food label can therefore be viewed as a compact information system. It tells consumers not only what the product is, but also provides information that can help them decide whether, when and how to consume it.

Nutrition information: the label behind the label

One of the most important parts of a food label is nutritional information. Consumers increasingly want to know not only the name and ingredients of a product but also its nutritional composition.

Nutrition information can help consumers compare products and understand the contribution that a food may make to their diet. Information concerning energy, protein, fat and specified nutrients provides a more objective picture than marketing statements alone. For consumers, the value of nutrition information becomes particularly clear when comparing similar products. Two products may have similar-looking packages and similar claims, yet their nutritional profiles may differ considerably. Reading the nutrition panel allows consumers to move beyond advertising and examine the product's declared nutritional information.

Nutrition information is therefore an important part of informed food choice. It does not tell a consumer everything about a food, but it

provides information that can be considered alongside ingredients, portion size, food category and other label declarations.

Why front-of-pack nutrition labelling matters

Traditional nutrition information is generally presented as a detailed panel that requires consumers to locate the information, understand the nutrients and interpret the numbers. For consumers who have limited nutrition knowledge, limited literacy or simply little time while shopping, this can be difficult. This has led to growing interest in front-of-pack nutrition labelling (FOPNL). Unlike a conventional nutrition panel, front-of-pack information is designed to provide simplified nutritional information on the front of a package where it can be seen quickly.

FSSAI's 2022 draft proposal described FOPNL as supplementary nutrition information presenting simplified nutrition information on the front of pre-packaged foods. The proposal included symbols, graphics, text or combinations of these elements and proposed an Indian Nutrition Rating (INR) system. The proposed INR approach considered factors including energy, total sugars, saturated fat and sodium, together with certain positive nutritional factors. It proposed a pictorial rating from one-half star to five stars.

However, this distinction is important for an accurate article: the FOPNL/INR material cited here originated as a draft proposal and should not be described as a currently mandatory labelling requirement for all packaged foods. FSSAI's records identify the 2022 material as a draft notification concerning FOPNL and high-fat, sugar and salt foods.

Can simpler front-of-pack information help less-literate consumers?

One of the strongest arguments for simple visual nutrition information is accessibility. A detailed nutrition table requires a consumer to identify words, numbers, units and nutrient categories. This can create difficulties for people with limited literacy, limited nutrition knowledge or language barriers. Simple symbols, familiar visual cues and clearly displayed information may reduce the amount of reading and interpretation required at the point of purchase. For this reason, front-of-pack systems are potentially useful as a quick communication tool: a consumer can see important nutritional information without having to study the entire package.

However, it would be too broad to claim that a particular FSSAI front-of-pack system has already been proven to solve illiteracy-related

barriers. The more defensible point is that simple, standardised and prominently displayed visual information has the potential to make nutrition communication more accessible, particularly when consumers may find detailed numerical information difficult to interpret. For this reason, the future of food labelling is not simply about putting more information on packages. It is about making important information easier to notice and understand without replacing the detailed information that consumers may need.

Packaging and labelling: two sides of consumer protection

Packaging and labelling ultimately work together. A safe package protects the food physically, while an informative label protects the consumer's right to meaningful information. Packaging can help preserve the food during handling, transportation and storage; labelling can communicate its identity, ingredients, nutritional information and other required declarations. This is why FSSAI treats packaging and labelling through dedicated regulatory frameworks. The Packaging Regulations, 2018 focus on the suitability and safety of materials used to package food, while the Labelling and Display Regulations, 2020 address information that must be provided on food labels and displays.

For food businesses, compliance is therefore not merely a matter of making a package attractive. The package must be appropriate for the food and the label must provide the required information accurately. For consumers, the message is equally simple: do not judge a food product only by its front design. Read the label. The most attractive package may encourage a purchase, but the information on the label helps consumers understand what they are actually buying.

Conclusion

Food packaging has evolved from a simple protective covering into a sophisticated combination of safety, convenience, communication and marketing. Its role begins with protecting food from external hazards but extends to preserving quality, supporting transportation and storage, building brand identity and communicating information to consumers. FSSAI's regulatory framework places particular importance on the safety and suitability of food-contact materials. Primary packaging, which directly touches food, requires special attention, while secondary packaging provides an additional layer around the primary package. Paper and paperboard, plastic, glass and metal are among the major materials used

in food packaging, each with requirements related to its intended use. Labelling completes the communication process. A food label can provide information about the product, ingredients, nutrition, quantity, dates, allergens and other required declarations. Nutrition information is especially valuable because it allows consumers to look beyond advertising and compare products using declared nutritional information. At the same time, the growing discussion around front-of-pack nutrition labelling shows that the challenge is no longer simply whether information is available,

but whether consumers can easily understand and use it. FSSAI's work on FOPNL demonstrates the importance of this continuing policy discussion, although proposed systems should be distinguished from requirements currently in force. Ultimately, good food packaging should perform three jobs at once: protect the food, communicate the product and support informed consumer choice. When safety-conscious packaging is combined with accurate and understandable labelling, the humble food package becomes an important part of the food-safety system itself.