Food Labelling and Marketing Provisions for Iron Pearl Millet and Zinc Wheat in India

November 2022

Iron and Zinc deficiency are the most common micro-nutrient deficiencies in women and children aiding to the increased levels of malnutrition in developing countries like India. According to the National Family Health Survey-5(2019-21), 67.1% of children aged 6-59 months and 57% of women are anaemic. Approximately 38 million children and 71 million adolescents have an elevated risk of zinc deficiency in India.
Many nutrition strategies such as dietary diversification, supplementation, fortification and biofortification are in place to address malnutrition issue.

Harvest Plus, part of the CGIAR, pioneered the development of more than 400 biofortified varieties with CGIAR and national program partners, and leads a global movement to rapidly scale-up production and consumption of biofortified staple crops and foods made with them.

The Global Alliance for Improved Nutrition(GAIN) is a Swiss-based foundation launched at United Nations to tackle human suffering caused by malnutrition. Working with governments, businesses and civil society, they aim to transform food systems so that they deliver more nutritious food to all the sections of people.

About Biofortification

Biofortification is the process of conventionally breeding food crops that are rich in micronutrients such as iron, zinc and vitamin A. These crops “biofortify” themselves by loading higher levels of minerals and vitamins in their seeds and roots and when eaten can provide essential micronutrients to improve nutrition and public health.

Peer reviewed clinical trials have demonstrated that biofortified foods have positive impact on nutritional status of women and children improving the physical and cognitive performance.

The word biofortification relates more to the process and is used in technical, academic, and policy documents. It is not advisable to use the word biofortification with food businesses, food processors, retailers or consumers. When working with foods that are developed from conventional breeding, it is recommended the products Nutrient Enriched Crops and then specified by the crop name and nutrient, for example, Iron Pearl Millet (IPM) and Zinc Wheat (ZW).

Objectives of the Brochure

- To help the value chain partners to process and pack Iron Pearl Millet(IPM) and Zinc Wheat (ZW) crops and foods
- As an information guide for those who want to label and market IPM and ZW foods
- To enhance compliance to National guidelines of businesses that sell or processes IPM and ZW food products
- This brochure aims to increase the growth of IPM and ZW food sector enterprises in India by advancing product marketing and labelling, processes and research models through market research and linkages

Standards for Labelling and Display of IPM & ZW Foods

Labelling requirements for packaged foods as per Food Safety and Standards (Labelling and Display) Regulations, 2020 and Food Safety and Standards (Fortification of Foods) Regulations, 2018

Standards for Zinc, Iron and Vitamin A Nutrient Enriched crops according to PAS 233:2021, PAS 234:2021

Importance of Nutritional Information

Nutritional Information is a tool to provide accurate and specific nutrient content in the food so that consumers can make informed dietary choices. It is one of the most essential tools for the food industry to be able to inform the consumers.

Nutritional Information is defined as a description intended to inform the consumer of the nutritional properties of the food according to the Food Safety and Standards(Labelling and Display) Regulations, 2020 mandated by Food Safety and Standards Authority of India(FSSAI)

Why label IPM and ZW products?

- Provide information about the nutritional value of the products and allow consumers to compare products to make purchase decisions based on the nutrition composition
- Inform consumers about the advantages of the products
- Raise awareness of the importance of a healthy diet

Nutritional Information	Per 100g	Per Serve (50g)	% of RDA/Serve
Energy (kCal)	365	182.5	9.1
Carbohydrates (g)	74	37	-
-Total Sugars (g)	1.8	0.9	-
-Added Sugars (g)	6	3	6
Dietary Fibre (g)	0	0	-
Total Fat (g)	3	1.5	2.23
-Trans Fat (g)	0	0	-
-Saturated Fat (g)	0.8	0.4	1.8
-Cholesterol (mg)	0	0	-
Sodium (mg)	3	1.5	0.075
			% of RDA/100mg
Iron (mg)	5	2.5	29.4
Zinc (mg)	3	1.5	12.5

Source: Manna Multi Millet Atta-Nutritional Information, Basis RDA for Sedentary Men, ICMR 2010

How to present the iron and zinc content on food labels

The food manufacturer should ensure that the amount of mineral present in the food should be clearly specified on the food label.

Nutritional Information about the added mineral iron/zinc per 100g/100ml or per single consumption pack of the product and per serve percentage(%) contribution to the Recommended Dietary Allowance should be stated on the label

The nutritional information about the minerals/vitamins should always be expressed in metric units. For example in case of Iron and Zinc, the amount of mineral present in the food is expressed on the label of food in mg/100g and mg/serve

Nutritional Information	Per 100g	% of RDA/100 g
Energy (kCal)	355	18
Carbohydrates (g)	71	26
-Total Sugars (g)	4	2
Protein (g)	13	
Dietary Fibre (g)	12	48
Total Fat (g)	2	2
-Saturated Fat (g)	0.4	2
Sodium (mg)	0.2	0%
Zinc (mg)	3	30

Requirements of Labelling

Pre packaged food either fortified or biofortified naturally with nutrients shall be labelled following the Food Safety and Standards (Labelling and Display) Regulations, 2020.

Name of the Food

Every package of the food shall carry the name of the food on the Front Pack i.e., the Principal Display Panel which indicates the true nature of the food contained in the package.

Claim “Natural Source of”

When no other vitamins or minerals are added by post-harvest food fortification & food contains naturally occurring vitamins and minerals, the claim “Natural Source of” against the trade name, brand name or fancy name of the food can be highlighted.

List of Ingredients

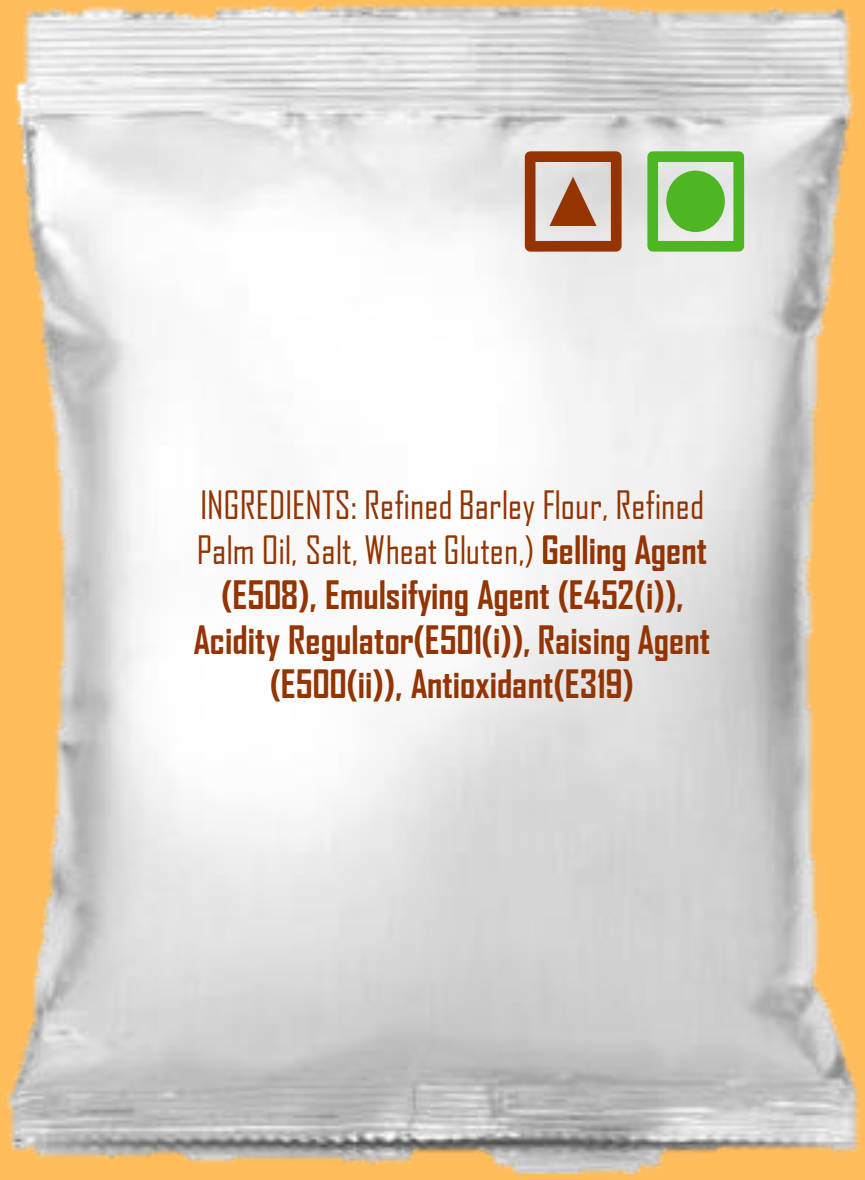
Except for single ingredient foods, a list of ingredients shall be declared on the label which should be preceeded by a term “Ingredients/List of Ingredients”. The ingredients shall be listed in descending order of their composition by weight or volume (W/w or W/V). The ingredients mentioned should be categorically listed according to the classes specified in the regulation. Where an ingredient in the IPM or ZW food is itself the product of two or more ingredients, such a compound ingredient should be accompanied by a list in brackets of its ingredients in descending order of their proportion (m/m). When a compound ingredient constitutes less than 5% of the food and the ingredients other than food additives that serve the technological function in the food products, shall not be included in the ingredient list. The ingoing percentage of an ingredient by weight or volume shall be disclosed in IPM and ZW foods where it is emphasized as present on the label and is essential to charecterise the food

Declaration regarding Veg/Non-Veg

Every package of IPM and ZW food carrying ingredients of vegetarian/non-vegetarian including food additives and processing aids shall bear a declaration to particular effect by a specified symbol or colour code.

Declaration regarding Food Additives

Every food to which flavouring agent or food additives are added in accordance with the regulation Food Safety and Standards (Food Product and Standards and Food Additives) Regulations, 2011 shall be declared in the list of ingredients. The class name of flavour and the common name of flavour should be declared in case of natural flavouring and artificial flavouring substances respectively.



Declaration of Name and Complete Address

The name and complete address of the brand owner, whether or not, he himself is the manufacturer, marketer, packer or bottler, as the case may be, shall be declared on the label. Such name and address shall be preceded by the qualifying words “Manufactured by (Mfg by, Mfd by)” or “Marketed by (Mkt by)” or “Manufactured & Marketed by” or “Packed & Marketed by” as the case may be.

Where an article of food is imported into India, the package of food shall also carry the name and complete address of the importer in India.

Provided further that where any food article manufactured outside India is packaged or bottled in India, the package containing such food article shall also bear on the label, the name of the country of origin of the food article and the name and complete address of the importer and the premises of packing or bottling in India.

FSSAI Logo and License No

The FSSAI logo and license number under the Act shall be displayed on the label of the IPM and ZW food in contrast color to the background.

The license number of the manufacturer or marketer or packer or bottler, as the case may be, if different from the brand owner, shall also be displayed on the label.

Every food business operator shall display on all its premises of the IPM and ZW food, where food is stored, processed, distributed or sold along with the Registration/License No

Lot/Code/Batch Identification

A batch number/ code number /lot number of the IPM and ZW food package shall be displayed on the label

Apart from that, a Bar code/Global Trade Identification Number(GTIN) may additionally can be provided which specifies the nutritional information

Date Marking

“Date of Manufacture or Packaging” and “Expiry/Use by/Best Before” shall be group together at one place and declared on the label.

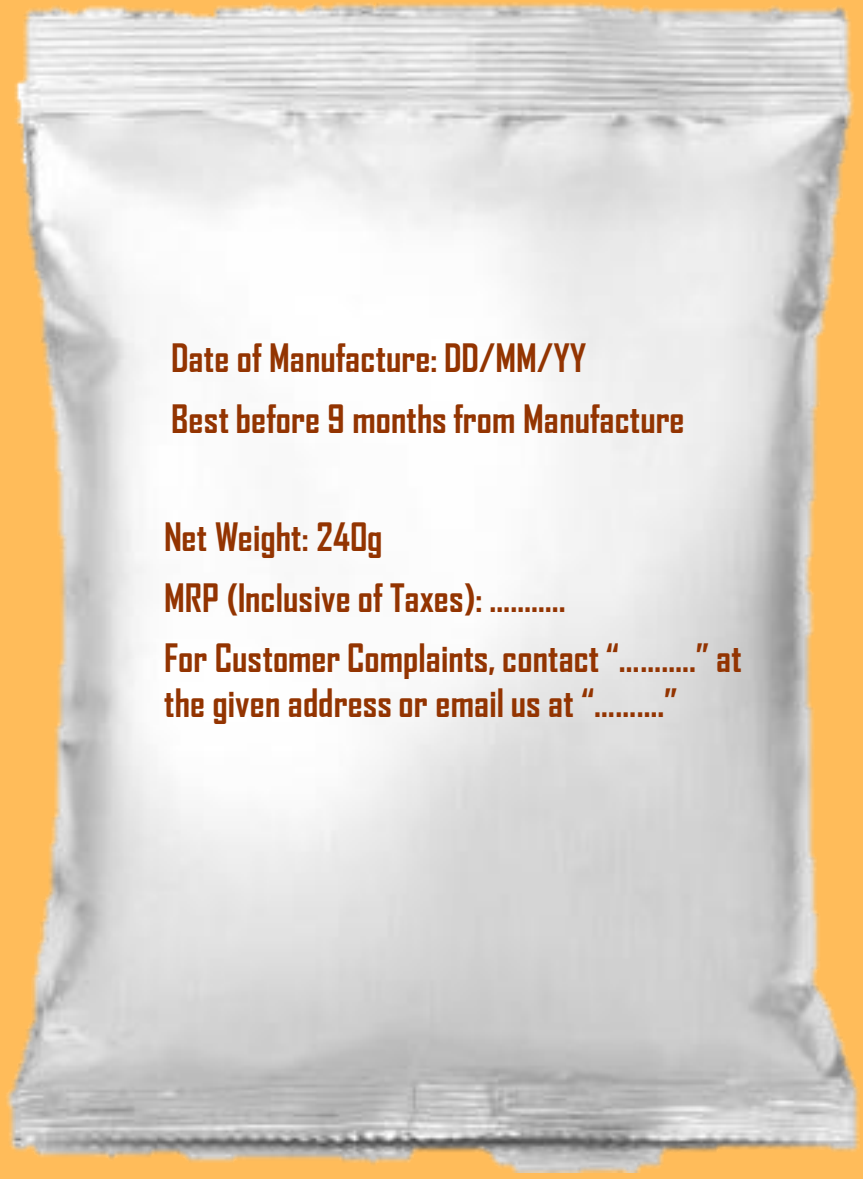
The manner of declaration of “Date of manufacture/packaging/Expiry/Use by/Bestbefore” shall be as follows:

- For food products with a shelf life of upto 3 months: DD/MM/YY
- For food products more than the shelf life of 3 months: DD/MM/YY format or Month and Year of the products with month abbreviated in capital letters

Any special conditions of storage can also be declared on the label if the validity of date depends thereon.

Net Quantity, Retail Sale Price and Consumer Care Details

For the Net Quantity of the produce, every unit of weight or measure shall be in accordance with the metric system based on international system of units. Retail Sale Price and Consumer Care details shall also be declared on the label.



Labelling of Imported Foods

In case of imported IPM and ZW packaged food, the label should declare the name and address of the importer, FSSAI Logo and license no., category or sub-category of the food along with generic name, nature and composition along with veg or non-veg logo

Country of Origin for Imported Foods

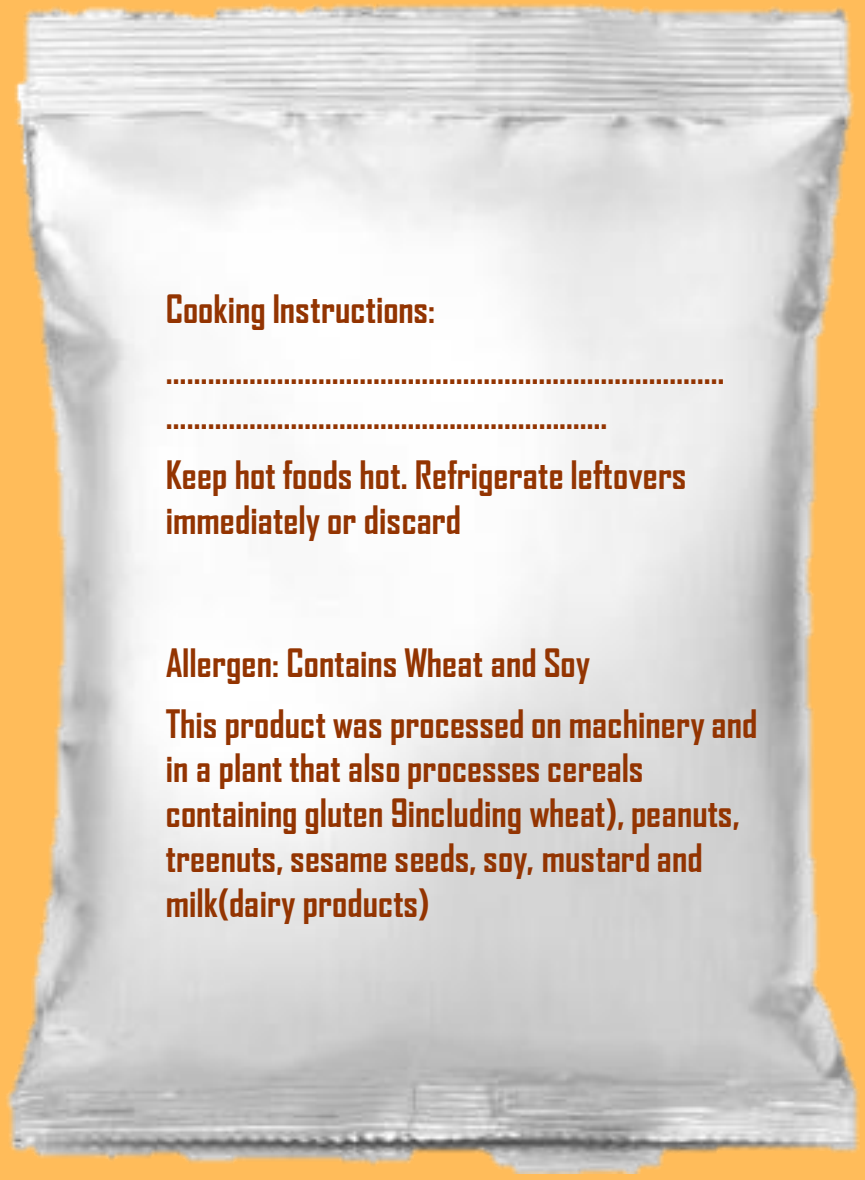
The country of origin (the country where the food is changing its form by processing resulting the change in HS Code at 6 digit level) shall be declared on the label of the food product imported to India

Instructions for Use

Instructions for use, including reconstitution, where applicable, shall be included on the label, to ensure proper utilization of the food or where such food requires directions for reasons for health and safety (E.g. ‘Refrigerate after opening’).

Declaration regarding Food Allergen

Food operators manufacturing IPM and ZW food products which are made of Cereals containing gluten i.e., wheat and barley shall declare on the label that the food contains ……(name of the allergy causing ingredients).



Labelling Requirements of Fortified Food/Nutrient Enriched food

All fortified food shall be packaged in a manner that takes into consideration the nature of fortificant added and its effect on the shelf life of such food.

Every package of zinc fortified wheat food (by postharvest fortification) shall carry the words “fortified with ……..(name of the fortificant)” and the F+ logo on its label. It may also carry a tagline “Sampoorna Poshan Swasth Jeevan” under the logo. Processed foods of wheat with natural source of zinc (biofortified ZW foods) also can carry the F+ logo along with the tagline as per Food Safety and Standards (Fortification of Foods) Regulation, 2018 (not applicable for Pearl Millet).

Harvest Plus have developed a logo that can be licensed for use in the marketing and promotion of nutrient enriched IPM and ZW foods. This logo can be used alone (IPM) or in addition with F+ logo (ZW). Please contact Harvest Plus if you would like to use this logo for your product promotion

Standards of PAS 233 and PAS 234

In addition to the standards regulated by FSSAI for the manufacturing and labelling of nutrient enriched foods, food manufacturers can also follow the internationally accepted standards for IPM and ZW foods available in the form of Publicly Available Specification (PAS).

PAS 233 and PAS 234 are developed for labelling standards of Zinc and Iron enriched crops respectively.

These standards focus on crops enriched with zinc and iron such as **wheat**, rice, maize, **pearl millet**, beans etc., by agronomic breeding practices, there by providing the specifications for the levels of nutrient present, sampling methodology, labelling and packaging of the foods.

Links for the PAS Documents:

https://www.bsigroup.com/en-GB/standards/pas-2332021/

https://standardsdevelopment.bsigroup.com/projects/2021-01315

International Labelling Standards for Zinc and Iron Enriched Crops

Product Name- "Zinc enriched Wheat" or "Iron enriched Pearl Millet"

Zinc/Iron Class (I, II or III)

Location of Production

Batch or Lot Number

Date of Harvest

Net weight(Kgs)

Name & address of manufacturer/packer

Nutrition and Health Claims for Iron and Zinc

Nutrient Content Claims and Nutritional Information for Processed Foods- Food Safety and Standards (Advertising and Claims) Regulations, 2018

Health Claims for processed and fortified foods- Food Safety and Standards (Advertising and Claims), Regulations, 2018

Dos and Don’ts for labelling of IPM and ZW foods

Nutrient Content Claims

Vitamins and Minerals can be claimed as source/high depending upon the % of RDA present per 100g/100ml of the product

Claims	Condition on Food
Source or (Provides/Contains)	The food provides at least 15% of RDA of the vitamin/mineral per 100g for solids or 7.5% of RDA of the vitamin/mineral per 100ml for liquids
High or (More/Rich)	The food provides at least 30% of RDA of the vitamin/mineral per 100g for solids or 15% of RDA of the vitamin/mineral per 100ml for liquids

Recommended Dietary Allowances

Indian Council for Medical Research (ICMR) specified Recommended Dietary Allowances (RDAs) of vitamins, minerals and amino acids for daily dietary nutrient intake of nearly all healthy individuals

	2010		2020	
	Men	Women	Men	Women
Zinc(mg/day)	12	10	17	13.2
Iron(mg/day)	17	21	19	29

*ICMR (2020) RDA Values are expected to come into force from 1 July 2023, till then food businesses have the option of compliance with either 2010 or 2020 regulations; Source: https://fssai.gov.in/upload/advisories/2021/07/60f1798019f94Direction_RDA_16_07_2021.pdf

How to analyse the food product

Nutrient	RDA	>15% (source)	>30% (high)
Zinc(mg)	13.2-17	>1.98-2.55	>3.96-5.1
Iron(mg)	19-29	>2.85-4.35	>5.7-8.7

As a rule, 15% and 30% of the recommended allowance from the table above supplied by 100g/100ml of the package can be claimed as source/high in nutrient respectively.

In the range of values specified, it is the choice of food manufacturer which values can be taken into consideration for labelling.

To determine the levels of nutrients in your product this can be done by calculation using national databases and chemical analysis. It is advisable to carry out regular lab analysis for nutrients for which nutrition and health claims are made.

Source:
https://fssai.gov.in/upload/advisories/2021/07/60f1798019f94Direction_RDA_16_07_2021.pdf

https://www.fssai.gov.in/upload/uploadfiles/files/Compendium_Labelling_Display_23_09_2021.pdf

NUTRITIONAL INFORMATION

Nutritional Information	Per 100g	% of RDA/100g
Energy (kCal)	355	18
Carbohydrates (g)	71	26
-Total Sugars (g)	4	2
Protein (g)	13	
Dietary Fibre (g)	12	48
Total Fat (g)	2	2
-Saturated Fat (g)	0.4	2
Sodium (mg)	0.2	0%
Zinc (mg)	3	30 (of RNI)

**Table for reference purposes*

Folic acid is important for foetal development & blood formation

Vitamin B-maintaining normal functioning of nervous system and blood formation

Health Claims

Health Claim for a particular vitamin/mineral can be made if the food product is either source/high in the particular vitamin/mineral

The claims have to be made in line with the specifications given in Schedule-IV of Food Safety and Standards(Advertising and Claims) Regulations, 2018

- Iron contributes to reduction of tiredness and fatigue
- Zinc supports a healthy immune system

No reduction of disease risk claims shall be made that is not in accordance with the regulation. The Food Business Operators may choose to use similar terms in the claim statements while ensuring that the intent and meaning of the claim is not changed

Nutrient function and Other Function Claims can be made in accordance with the current relevant scientific substantiation which shall be reviewed by the food business operator

A Statement of the quantity of the nutrient per 100g/100ml of the product as a percentage of the RDA should be mentioned on the package

Do’s and Don’ts for labelling of IPM and ZW foods

DO

- Truthful labelling in compliance with regulations
- Use the commodity name
- Use the words Zinc Wheat and Iron Pearl Millet. Also mention nutritionally enriched varieties
- Mention segment specific benefits i.e., for children above 5, lactating mothers, elderly, etc.
- Use the term ‘natural source of’
- Mention importance of balanced and healthy diets and how does the product contribute to it

DONT

- Overstating the benefits
- Mention disease prevention and cure related benefits
- Use the word ‘ biofortification’
- Make any nutrition claims if zinc or iron levels of the final product do not meet the required minimum levels

How to tell Consumers about the benefits

Type of Claim	How to display	Example
Nutrient Content Claims	Include % of RDA met by the nutrient in the Nutrition Label	Source of Iron Rich in Zinc
Equivalence Claims	Include a claim stating the comparison with a nutrient rich food	Contains same amount of iron present in XX gm of spinach
Health Claims	Along with regulated claim statements, use current scientific substantiations	Zinc supports a healthy immune system
Natural Source of	Only when naturally occurring, not added post-harvest by fortification	Natural Source of Iron/Zinc

Ways to Communicate to consumers

Communication related to benefits and value propositions of nutrient enriched crops based food products can be communicated using ATL and BTL activities through both, traditional as well as digital marketing methods

RURAL

Awareness through kisan melas and road shows

Promotion by Opinion Leaders

Manufacturing of processed foods by women-SHGs

URBAN

In-Store Advertisements

Endorsement by Health/Fitness influencers

Collaboration with popular cooking shows/chefs on IPM & ZW recipes

TV Commercials & Radio Communication

Social Media Advertisements

Advertising by Print Media

How to register with Food Safety and Standards Authority of India (FSSAI)

FSSAI has been established under the Food Safety and Standards Act, 2006 (FSS Act) which is a consolidating statue related to food safety and regulation in India. It is responsible for registering and licensing Food Business Operators in India and lays down rules and regulations for running Food Business in India.

The licensing and registration procedure for FSAAI are regulated by Food Safety and Standards (Licensing and Registration of Food Business) Regulations, 2011. Registration is meant for petty food manufacturers that includes petty retailer, hawker, itinerant vendor or a temporary stall holder or small cottage industry having annual turnover up to 12 lakhs. The registration can be taken up to a time period of 1-5 years.

For further information up on the process, requirements, eligibility criteria and registration status, Please Visit:

https://foscos.fssai.gov.in/

Help Desk: 1800112100

07:00 AM-11:00 PM

@helpdesk-foscos@fssai.gov.in

FSSAI Registration Process

Small Business/Food Business Operators can apply for FSSAI registration on the portal of Food Safety and Compliance System.

The applicant/FBO needs to fill the Form-A and submit the required documents on the portal for registration by paying the fees of around INR 100/-

The registration process is illustrated as below: