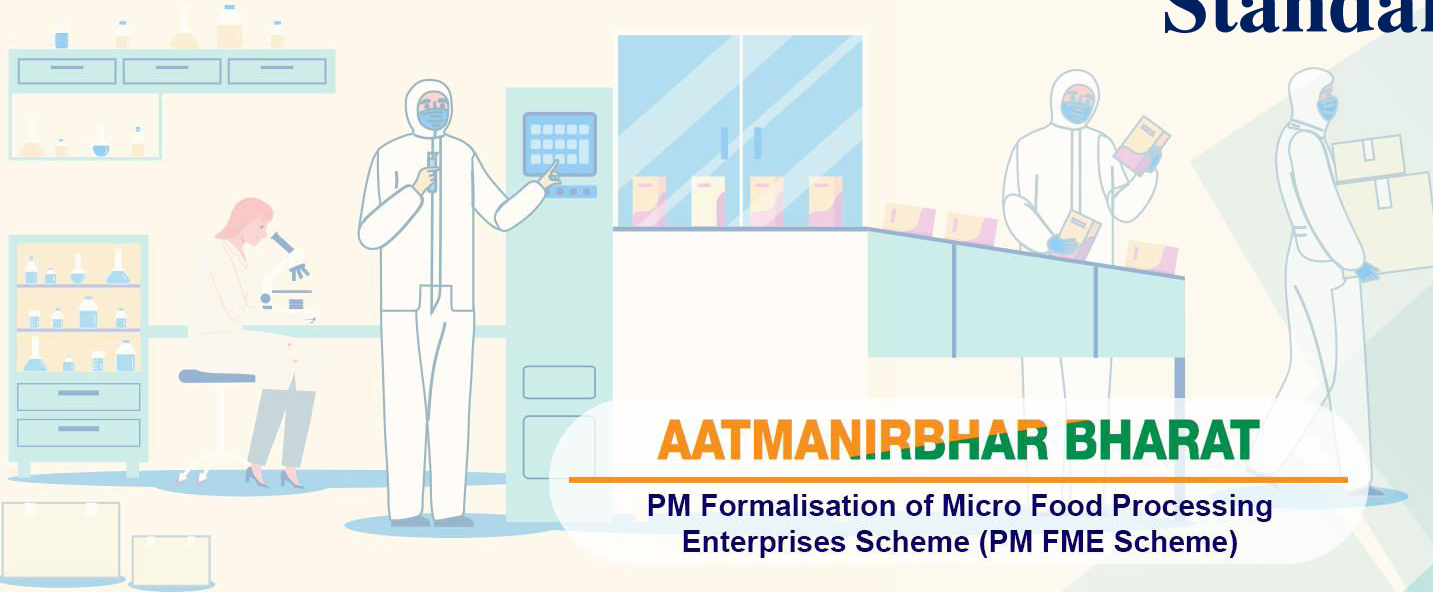


# Module – 8

## Food Safety and Standards



**AATMANIRBHAR BHARAT**

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



# CONTENT

- **Food Regulatory Compliances**
- **Licensing/Registration of FBO**
- **Packaging and Labelling Requirements for FBO**
- **Introduction to HACCP and FSMS Certification**
- **FSSAI Initiatives for Promoting Safe and Wholesome Food**
- **Food Quality Testing and GLP**
- **Plant Layout and Maintenance**
- **PMFME Overview**

# 1

## FOOD REGULATORY COMPLIANCES

# Food Regulatory Compliances

Regulatory compliance is a procedure where requirements in the form of directives, regulations, and standards are stated by any regulatory body. The main intention of food product compliance is quality assurance.

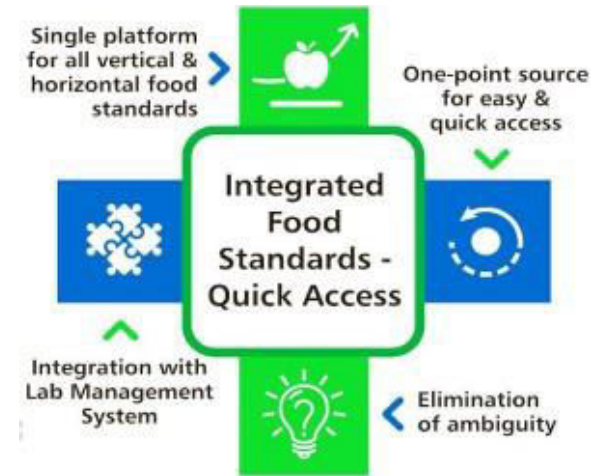




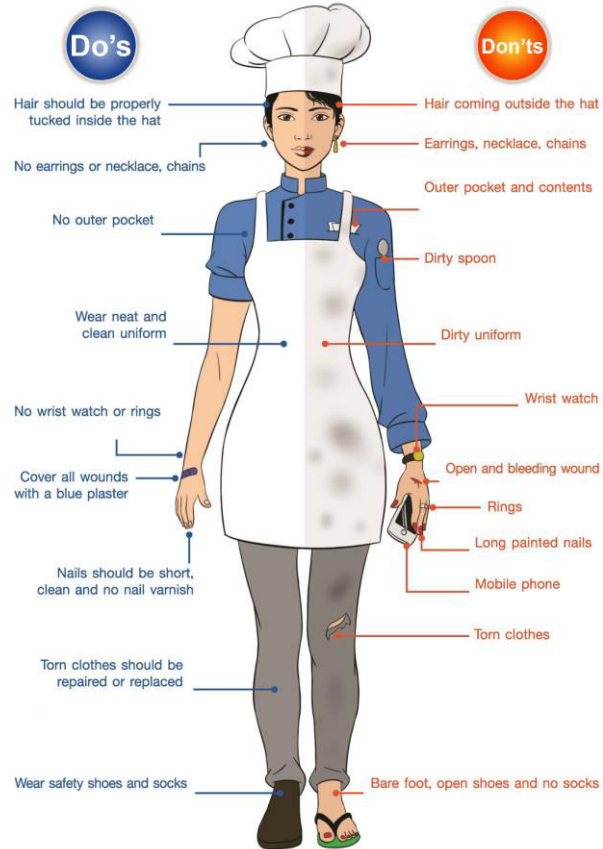
## Food Safety and Standards Act and Food Authority

Food Safety and Standard Act, 2006 was officially implemented on August 5, 2011. Under this act, a single reference point and regulatory body called Food Safety and Standards Authority of India (FSSAI) was established for all matters relating to food safety and standards, which will work as an independent statutory authority under the Ministry of Health & Family Welfare, Government of India.

The regulatory compliance of any FBOs will largely be evaluated based on the standards framed by FSSAI. FSSAI has developed a system- Integrated Food Standard (IFS) quick access, integrating all Food Safety Standards and Regulations.



# Do's & Don'ts for FBOs



FSSAI has provided an advisory for the chefs and food handlers, more specifically concerning hygiene and safety.



## LICENSING AND REGISTRATION

The foremost important regulation that any food business operator should comply with is the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011. According to this regulation, it has been made mandatory by FSSAI that, every food business operator must compulsorily obtain FSSAI Registration or License.



## TYPES OF FSSAI LICENSING AND REGISTRATION

### **BASIC REGISTRATION**

FBOs having an annual turnover of less than Rs. 12 lakhs must obtain FSSAI basic registration.

### **STATE LICENSE**

FBOs having an annual turnover of more than Rs. 12 lakhs and less than Rs.20 crores must obtain the FSSAI state license.

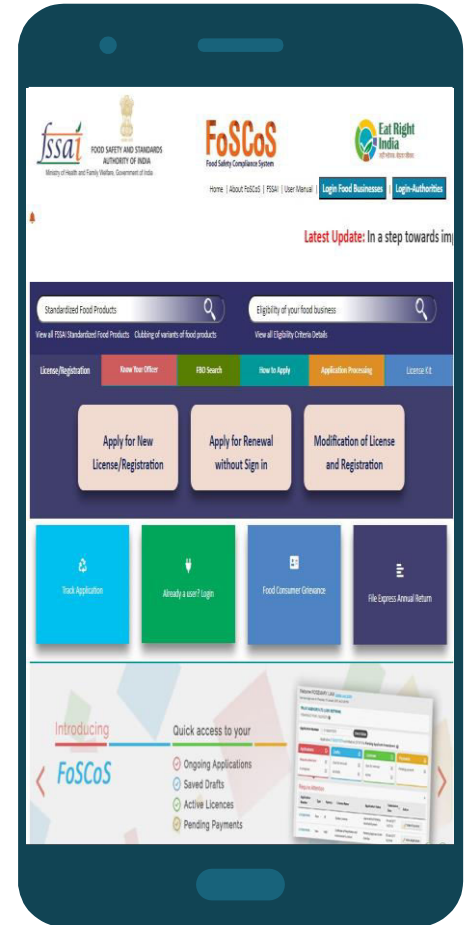
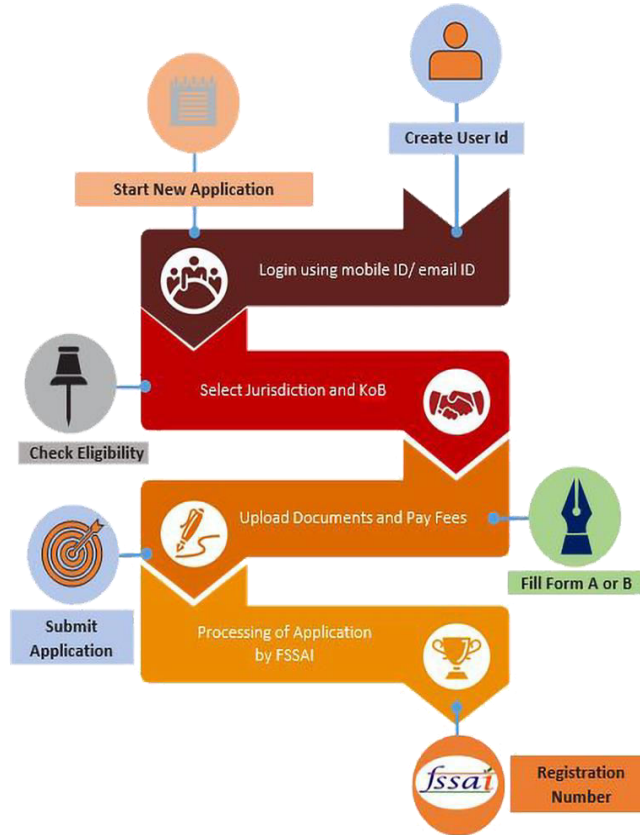
### **CENTRAL LICENSE**

FBOs having an annual turnover of more than Rs. 20 crores must obtain the FSSAI central license.



# LICENSING AND REGISTRATION PROCESS

To obtain a license or registration- Apply through an online portal called Food Safety Compliance System (FoSCoS).



<https://foscoss.fssai.gov.in>

# 2

## **PACKAGING AND LABELLING REQUIREMENTS FOR FOOD BUSINESS OPERATORS (FBOs)**

# FOOD PACKAGING

It is the enclosing of Food to protect it from damage, contamination, spoilage, pest attacks, and tempering, during transport, storage, and retail sale. The package is often labeled with information such as the amount of the contents, ingredients, nutritional content, cooking instructions (if relevant), and shelf life. The package needs to be designed and selected in such a manner that there are no adverse interactions between it and the food. Package will maintain the quality and integrity of the product till it reaches the consumer for its intended use.

## **PACKAGING MATERIAL:**

Materials such as cardboard, Paper, Glass, metal, Plastic, multi-layer packaging materials used for packaging of Food Products.



# TYPES OF PACKAGING

## PRIMARY PACKAGING



## SECONDARY PACKAGING



## TERTIARY PACKAGING





## PACKAGING REQUIREMENTS BY FBO

The requirements for the packaging of any food that is being manufactured by any food business operator (FBO) are given in a regulation called, Food Safety and Standards (Packaging) Regulation, 2018.

- Tin containers once used, shall not be re-used for packaging food.



## PACKAGING REQUIREMENTS BY FBO

- Printing inks for use on food packages shall conform to IS: 15495.

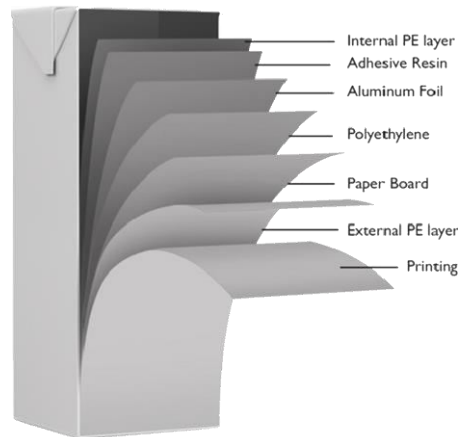


- Newspaper or any such material shall not be used for storing and wrapping food.



## PACKAGING REQUIREMENTS BY FBO

- In multilayer packaging, the layer that comes in direct contact with food shall meet the requirements as specified in FSSR and shall obtain the testing certificate of the packaging material from the NABL testing laboratories/agencies.



# **LABELLING REQUIREMENTS AS PER FSSAI**





# SYMBOLIC REPRESENTATIONS IN LABEL AS PER FSSAI LABELLING REGULATIONS

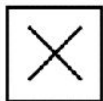
The requirements for labeling of pre-packaged foods and display of essential information on the package label are prescribed in the Food Safety and Standards (Labelling and Display) Regulations, 2020.



Non - Vegetarian  
Logo



Vegetarian  
Logo



Food material sold in retail but  
which is Not *Meant for Human  
Consumption*



Fortified with  
SAMPOORNA POSHAN  
SWASTH JEEVAN

Fortified Foods shall carry the words  
"Fortified with" and the logo and  
also a tagline "Sampoorna Poshan  
Swasth Jeevan" under the logo



Jaiwik Bharat

Every package of certified Organic  
Food as per Food Safety and  
Standards (Organic Foods)  
Regulations, 2017 shall carry this logo



LI: No. XXXXXXXXXXXXX

The FSSAI logo and license number  
under the Act shall be displayed on  
the label of the food package in  
contrast color to the background as  
above

PROCESSED BY RADIATION



Name of the Product:

Purpose of Radiation Processing:

Operating License No. :

Batch Identification No. (BIN) (as provided by facility):

Date of Processing....."

Any food that has undergone the process of  
irradiation (Irradiated Foods) provided shall bear  
the Radura logo in green colour

FSSAI has finalised the regulation called, Food  
Safety and Standards (Advertising and Claims)  
Regulation, 2018, which aims at establishing  
fairness in claims and advertisements of food  
products and make food businesses accountable  
for such claims /advertisements so as to protect  
consumer interests.

For more information:

[www.fssai.gov.in](http://www.fssai.gov.in)

# 3

## **INTRODUCTION TO HACCP AND FSMS CERTIFICATION**

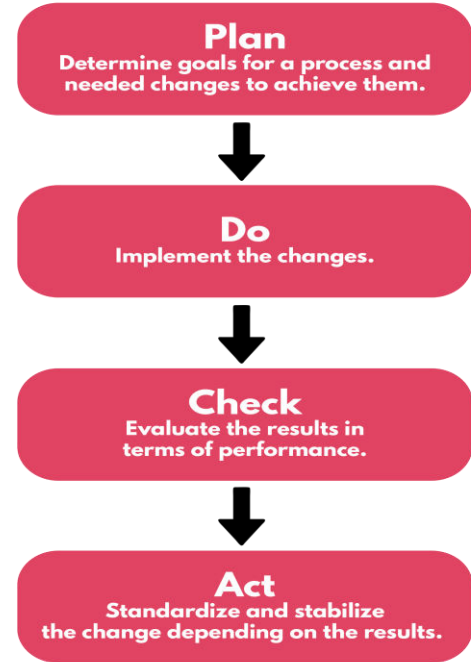
# WHAT IS FSMS?



Unsafe food is a threat to human health and economies globally. Therefore, ensuring food safety is a public health priority and an essential step to achieving food security.

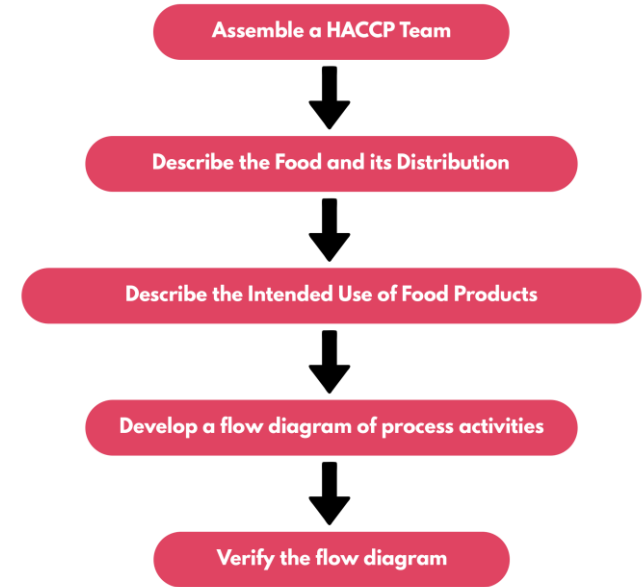
- Provide assurance of food safety
- Food businesses must implement an effective; Food Safety Management System (FSMS) based on Hazard Analysis and Critical Control Points (HACCP) and suitable Pre-Requisite Programmes (PRPs).

# PDCA (PLAN DO CHECK ACT)



PDCA is an improvement cycle based on the scientific method of proposing a change in a process, implementing the change, measuring the results, and taking appropriate action. It also is known as the ‘**Deming Cycle**’.

# HACCP (HAZARD ANALYSIS AND CRITICAL CONTROL POINT)



It is defined as a systematic approach to the identification, evaluation, and control of food safety hazards. It is designed for use in all segments of the food industry from growing, harvesting, processing, manufacturing, distributing, and merchandising to preparing food for consumption. Prerequisite programs such as current Good Manufacturing Practices (GMP) are an essential foundation for the development and implementation of successful HACCP plans.

# SEVEN PRINCIPLE OF HACCP



## Principle 1

Conduct a hazard analysis

## Principle 2

Determine the critical control points (CCPs)

## Principle 3

Establish critical limits

## Principle 4

Establish monitoring procedures

## Principle 5

Establish corrective actions

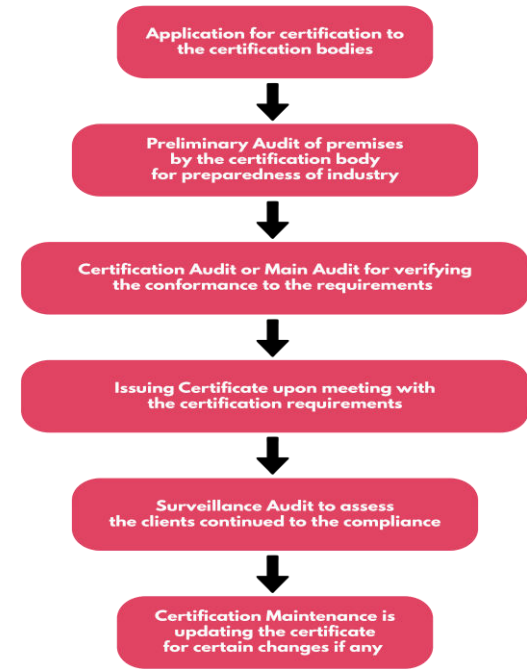
## Principle 6

Establish verification procedures

## Principle 7

Establish record-keeping and documentation procedures

# FSMS CERTIFICATION



FSMS Certification is a procedure to verify that the essential principles of food safety are applicable throughout the food chain (including primary production through to the final consumer), to achieve the goal of ensuring that food is safe and suitable for human consumption.

# 4

## **FSSAI Initiatives for Promoting Safe and Wholesome Food**



# FSSAI INITIATIVES

These initiatives aim to promote both the demand for and the supply of safe and healthy food in a sustainable way. Let's have a quick view on these initiatives and movements of FSSAI.

## 1. EAT RIGHT INDIA MOVEMENT

The Eat Right India movement is started on 10th July 2018, and works for ensuring safe, healthy, and sustainable food.

The tagline of this initiative is, “**Sahi Bhojan Behetar Jeevan**”.



## 2. FOOD SAFETY MITRA

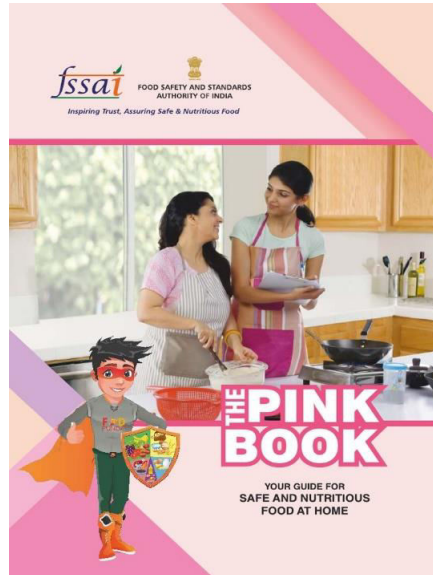
It is an individual professional certified by FSSAI and performs limited actions on behalf of/for FBOs with respect to the implementation of the FSS Act, Rules and Regulation. The Food Safety Mitra will work for the following job roles. They are:

- **Digital Mitra:** To assist FBO in their compliance on the online portals of FSSAI.
- **Trainer Mitra:** To train FBOs regarding the Food Safety Act, Regulations, and implementation.
- **Hygiene Mitra:** To do Hygiene Ratings of FBOs.

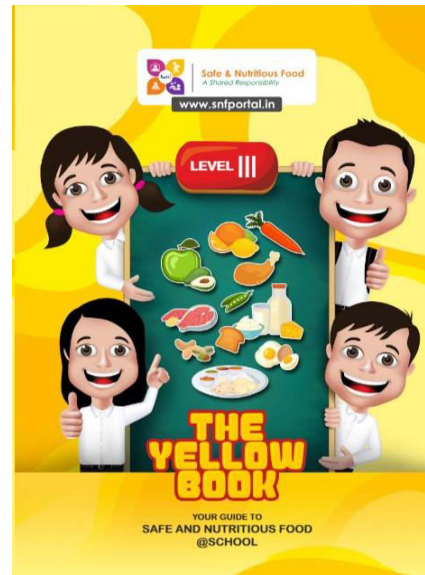


### 3. SAFE AND NUTRITIOUS FOOD (SNF)

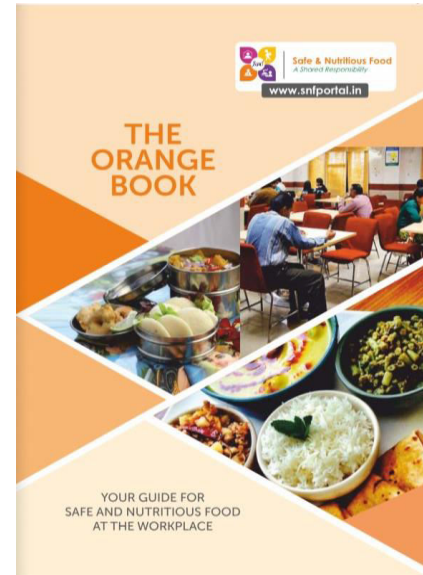
FSSAI has undertaken several initiatives under the umbrella of ‘Safe and Nutritious Food’ (SNF) for citizen guidance and behavioral change in every sphere at home, school, workplace, or eating out.



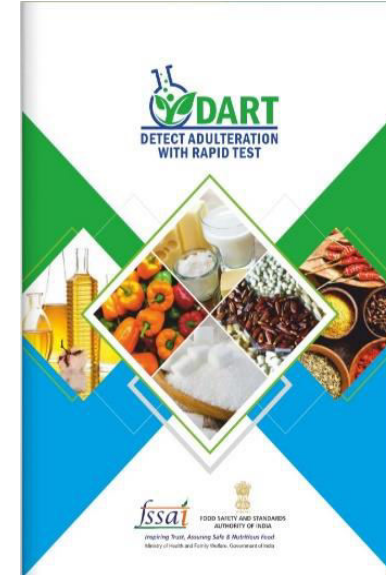
Home Kitchen



School Children's



Work Places



Simple test for Food Adulterants

## 4. FOOD FORTIFICATION

Food Fortification Resource Centre is set up by FSSAI to eliminate Hidden Hunger from wide communities of people in the world. This center helps to promote large-scale fortification of food across India.

### Fortified Foods by FSSAI



**Wheat Flour Fortified with Iron, Folic Acid, Vitamin B12**



**Salt Double Fortified with Iodine and Iron**



**Rice Fortified with Iron, Folic Acid, Vitamin B12**



**Milk Fortified with Vitamin A and Vitamin D**



**FORTIFIED**

**SAMPOORNA POSHAN  
SWASTH JEEVAN**

## 5. REPURPOSE USED COOKING OIL (RUCO)

RUCO enables the collection of used cooking oil to biodiesel and also sets a mandatory limit of Total Polar Compounds (TPC).



Website: <https://eatrightindia.gov.in/ruco/>

## 6. FOOD SAFETY ON WHEELS (FSWS)

- Food Safety and Standards Authority of India has initiated a scheme to provide mobile units for food testing, called “Food Safety on Wheels” to reach out to consumers through as many touch points as possible.
- FSWs were initiated by FSSAI to provide mobile food testing facilities to impart confidence amongst consumers that food is safe and nutritious to consume.
- It is mainly intended to address the lack of testing infrastructure in remote areas to furnish the elementary analytical needs of the consumers.
- This would not only address the issue of lack of food testing infrastructure in remote areas but also cater to the basic analytical needs of consumers along with spreading awareness and imparting training to the general public and food business operators including street vendors on various aspects of food safety



## 7. JAIVIK EXPRESS

- Nowadays organic foods are in increasing demand and trend among people because of their irreplaceable health benefits.
- For ease of consumers to identify certified organic products FSSAI has launched Jaivik Bharat, a unique logo that is intended to identify organic products from non-organic ones.
- This logo represents both the certification of National Programme for Organic Production (NPOP) and the Participatory Guarantee System (PGS).



## 8. FOOD SAFETY TRAINING AND CERTIFICATION (FoSTaC)

- Large-scale training program for food business operators.
- All food businesses having Central Licenses or State Licenses should have at least one trained and certified food safety supervisor for every 25 food handlers or part thereof on all their premises.

### OBJECTIVE

- To enhance the availability of skilled/ trained manpower in the food industry.
- Creating an improved environment of self-compliance to the FSS Act, Rules, and Regulations by responsible Food Businesses.
- Bringing a behavioral change and inculcating a culture of Food safety in the country.
- Minimize the loss of Production time and improve the quality of the Product





## 9. BLISSFUL HYGIENIC OFFERING TO GOD (BHOG)

BHOG is a large-scale initiative to transform the country's food system to ensure safe, healthy, and sustainable food for all the devotees at the Places of Worship (PoW).

Cleanliness is next to Godliness. Food served in the Places of Worship is regarded as pure and sacred. Thus, food should be prepared in a clean and proper manner with utmost importance to hygiene.



# 5

## **FOOD QUALITY TESTING AND SCHEDULE 4 REQUIREMENTS GLP PLANT LAYOUT AND MAINTENANCE**

# WHAT IS FOOD SAFETY?

Food is the major determinant of health, nutritional status, and productivity of the population. Food safety and quality are important at the home level but are critical in large-scale food production and processing and also where food is freshly prepared and served.

- Food quality refers to attributes that influence a product's value to consumers.
- Food safety means assurance that food is acceptable for human consumption according to its intended use.
- Food analysis is the discipline that deals with the development, application, and study of analytical procedures for characterizing the properties of foods and their constituents.



# PURPOSE OF FOOD QUALITY TESTING

## 1. Government Regulations and Recommendations

- The FBOs are made mandatory to comply with these regulations:  
Food Standards - Nutritional Labelling – Food Authenticity- Food Inspection and Grading.

## 2. Food Safety

- One of the most important reasons for analyzing foods from both the consumer's and the manufacturer's standpoint is to ensure that they are safe.

## 3. Quality Control

- To meet these rigorous standards food manufacturers, need analytical techniques to analyze food materials.
- Characterization of raw materials
- Monitoring quality during processing
- Characterization of Final Product

# SAMPLING OF FOOD FOR FOOD QUALITY TESTING

- **SAMPLING:** Selection of an appropriate fraction of the whole material for analytical purposes.
- **POPULATION:** The whole of the material whose properties we are trying to obtain.
- **SAMPLE:** Only a representative fraction of the population is usually selected for analysis.
- **LABORATORY SAMPLE:** A fraction of the sample which is actually used in the final laboratory analysis.  
FBOs should check the scope of the laboratory before submitting their samples for analysis. The report obtained from a laboratory whose scope does not include your protection will not be get considered by the Food Authority for meeting the compliance for obtaining the license or registration certificate.

# GOOD LABORATORY PRACTICES (GLP)

## The basic principles of GLP

- Test Facility organization and personnel
- Quality Assurance Program
- Analytical and Instrumentation Facilities
- Apparatus, Materials, and Reagents
- Test System
- Test Methods and Reference Standards
- Standard Operating Procedures (SOPs)
- Performance of Test/ Study
- Reporting of Test Results
- Storage and Retention of Records and Materials

# SCHEDULE - 4

Schedule 4 provides guidelines about General Hygienic and sanitary practices to be followed by Food Business Operators. It comprises of 5 parts as mentioned below:

General Hygiene and Sanitary practices to be followed by Petty FBOs applying for registration

General requirements on Hygienic and Sanitary Practices to be followed by all FBOs applying for License

Specific Hygienic and sanitary practices to be followed by FBOs engaged in Catering/ Food Service Establishments

Specific Hygienic and sanitary practices to be followed by FBOs engaged in the manufacture, processing, storing, and selling of Meat and Meat products

Specific Hygienic and sanitary practices to be followed by FBOs engaged in the manufacture, processing, storing, and selling of Milk and Milk products

# FOOD PLANT DESIGN

- **LOCATION AND SURROUNDINGS**



- **EQUIPMENTS AND CONTAINERS**



- **FLOORS, CEILINGS AND WALLS**



- **FACILITIES**





# FOOD PLANT DESIGN

- DRAINAGE & WASTE DISPOSAL**



- PERSONAL HYGIENE**



# 6

## **OVERVIEW OF THE PMFME SCHEME**

# PMFME SCHEME

PMFME is a centrally sponsored scheme and is implemented in close collaboration with State Nodal Agencies of respective States. All the States/UTs have appointed Nodal Agencies for the implementation of the scheme. The MIS portal for PMFME Scheme is receiving individual applications for credit-linked subsidies for the upgradation of food processing units.

The Scheme is to be implemented for a period of five years from 2020-21 to 2024-25 with an outlay of Rs.10,000 Crore. The main theme of the Scheme is the One District One Product (ODOP) approach, a part of a broader strategy of concentrated agro and industrial development focused on each district



# AIM

Enhance the competitiveness of existing individual micro-enterprises in the unorganized segment of the food processing industry

Support Farmer Producer Organizations (FPOs), Self Help Groups (SHGs) and Producers Cooperatives along their entire value chain

Promote Formalization of the sector

# OBJECTIVE

Integration with an organized supply chain by strengthening branding & marketing.

Increased access to credit to exiting micro food processing entrepreneurs for technology upgradation.

Capacity building of entrepreneurs through technical knowledge, skill training, and hand-holding support services.

Support for the transition of existing enterprises into a formal framework for registration under regulatory framework and compliance.

Support to Farmer Producer Organizations (FPOs), Self Help Groups (SHGs) and Producers Cooperatives & cooperative societies along their entire value chain to enable microenterprises to avail common services.



# SCHEME COMPONENTS and Benefits from the PMFME SCHEME

- Upgradation of New/  
 Existing micro units -  
 Credit linked subsidy @  
 35% to max Rs. 10 lakhs
- Seed capital support to  
 SHGs- Support up to Rs,  
 40,000 as working  
 capital to SHG members.
- Support for FPOs/SHGs/  
 Cooperatives – Credit-  
 linked capital  
 investment grant @ 35%.
- Support for establishing  
 common infrastructure
- Support for marketing &  
 branding - 50% grant





# FOR MORE INFORMATION

**Helpline Number:** +91 9254997101 ,  
+91- 9254997102

**Email ids:** support-pmfme@mofpi.gov.in  
pmfme-fpi@gov.in

**Weblinks:**

<https://pmfme.mofpi.gov.in/pmfme/#/Home-Page>  
<http://niftem-t.ac.in/olapp/pmfme/web/index.php>  
<http://niftem-t.ac.in/olapp/pmfme/web/material.php>

Online application portal (MoFPI): <https://pmfme.mofpi.gov.in/pmfme/#/Login>

# THANK YOU

