
UNIT 4 PREVENTION OF FOOD ADULTERATION ACT (PFA)

Structure

- 4.0 Objectives
- 4.1 Introduction
- 4.2 PFA Act (37 of 1954)
- 4.3 Details of PFA Act
 - 4.3.1 Objective
 - 4.3.2 Definition of Food
 - 4.3.3 Meaning of Adulterant
 - 4.3.4 Concept of Adulteration
 - 4.3.5 Sale of Certain Admixtures Prohibited
 - 4.3.6 Misbranded
- 4.4 Committee for Food Standards
 - 4.4.1 The Central Committee for Food Standards
- 4.5 General Provisions on Food
 - 4.5.1 Prohibition of Import of Certain Articles of Food
 - 4.5.2 Prohibitions of Manufacture, Sale, etc. of Certain Articles of Food
- 4.6 Public Analysts, Inspectors
- 4.7 Procedure for Sampling, Analysis and Punishment
- 4.8 Important Miscellaneous Provisions
- 4.9 Amendments
 - 4.9.1 Amendments and Changes
 - 4.9.2 Specifications/Procedure Related to Fish Products
- 4.10 Let Us Sum Up
- 4.11 Glossary
- 4.12 Suggested Further Reading
- 4.13 References
- 4.14 Answers to Check Your Progress

4.0 OBJECTIVES

After reading this unit, you will be able to:

- justify the need of an act to ensure that food sold is safe;
- discuss the PFA Act and how it works; and
- explain the role of PFA in prevention of food adulteration.

4.1 INTRODUCTION

India is the second largest producer of food next to China. Food, you will agree, is one of the essentials of life. It should be pure, nutritious and free from any type of adulteration for proper maintenance of human health. It is the duty of every

Government to make pure and safe food available to the countrymen in sufficient quantities. In order to make available unadulterated food in the country, the Government makes various food laws. Even earlier, laws existed in a number of States in India for the prevention of adulteration of food- stuffs. But, they lacked uniformity having been passed at different times without proper, mutual consultation between States. The need for Central legislation for the whole country in this matter has been felt since 1937 when a Committee appointed by the Central Advisory Board of Health recommended this step.

‘Adulteration of food-stuffs and other goods’ is now included in the Concurrent List (III) in the Constitution of India. It has, therefore, become possible for the Central Government to enact an All India legislation on this subject. The Bill replaces all local food adulteration laws where they exist and also applies to those States where there are no local laws on the subject.

Among others, it provides for:

- i) A Central Food Laboratory to which food samples can be referred to for final opinion in disputed cases (Clause 4),
- ii) A Central Committee for Food Standards consisting of representatives of Central and State Governments to advise on matters arising from the administration of the Act (Clause 3), and
- iii) The vesting in the Central Government of the rule-making power regarding standards of quality for the articles of food and certain other matters (Clause 22).

4.2 PFA ACT (37 OF 1954)

The Prevention of Food Adulteration Bill was passed by both the houses of Parliament and received the assent of the President on 29th September, 1954. It came into force on 1st June, 1955 as The Prevention of Food Adulteration Act, 1954 (37 of 1954).

To give effect to the provisions of the Act, rules were made in 1955 and called “Prevention of Food Adulteration Rules, 1955”(published in Part II, Section 3 of the Gazette of India vide S.R.O. 2106 dated 12 September 1955).

Though PFA Act and Rules are Central Legislature, the responsibility of implementation has been entrusted to the State Governments and Union Territories. Each State Government and Union Territory has created its own organization for implementation of the Act and Rules framed there under.

The Prevention of Food Adulteration Act 1954 was notified by the Govt. of India in the Ministry of Health and Family Welfare (Dept. of Health), Published in the Gazette of India (extraordinary) dated 21 December 2004, an amendment of the Prevention of Food Adulteration Rules, 1955 have come.

4.3 DETAILS OF PFA ACT

The salient features of the PFA Act includes objective, definition of food, meaning of adulterant, concept of adulteration, misbranded items, sale of certain

admixtures, relevant committees, analysts, procedure for sampling & analysis, penalties and important miscellaneous provisions. For the benefit of a learner like you, the small description of the major features of the Act are given below in a simplified way so that it is easier for you to understand.

4.3.1 Objective

The main objectives of the act are:

- 1) to make provision for the prevention of adulteration of food;
- 2) to protect the public from poisonous and harmful foods;
- 3) to prevent the sale of substandard foods; and
- 4) to protect the interests of the consumers by eliminating fraudulent practices.

Definitions

Clear definitions are given for terms such as food, adulterant, misbranded items, manufacture, sale, package etc. to describe the matters clear and simple. However, only some definitions which are more relevant are given below for your understanding of the Act clearly.

4.3.2 Definition of Food

- a) Any article which ordinarily enters into or is used in the composition or preparation of human food;
- b) Any flavouring matter or condiments; and
- c) Any other article which the Central Government may having regard to its use, nature, substance or quality, declare, by notification in the official gazette as food for the purpose of this Act.

4.3.3 Meaning of Adulterant

Adulterant is defined as “*any material which is or could be employed for the purposes of adulteration*”.

4.3.4 Concept of Adulteration

An article of food considered to be adulterated:

- a) if the article sold by a vendor is not of the nature, substance or quality demanded by the purchaser and is to his prejudice, or is not of the nature, substance or quality which it purports or is represented to be;
- b) if the article contains any other substance which affects, or if the article is so processed as to affect, injuriously the nature, substance or quality thereof;
- c) if any inferior or cheaper substance has been substituted wholly or in part for the article so as to affect injuriously the nature, substance or quality thereof;
- d) if any constituent of the article has been wholly or in part abstracted so as to affect injuriously the nature, substance or quality thereof ;
- e) if the article had been prepared, packed or kept under unsanitary conditions whereby it has become contaminated or injurious to health;

- f) if the article consists wholly or in part of any filthy, putrid, rotten, decomposed or diseased animal or vegetable substance or is insect-infested or is otherwise unfit for human consumption;
- g) if the article is obtained from a diseased animal;
- h) if the article contains any poisonous or other ingredient which renders it injurious to health;
- i) if the container of the article is composed, whether wholly or in part, of any poisonous or deleterious substance which renders its contents injurious to health;
- j) if any colouring matter other than that prescribed in respect thereof is present in the article, or if the amounts of the prescribed colouring matter which is present in the article are not within the prescribed limits of variability;
- k) if the article contains any prohibited preservative or permitted preservative in excess of the prescribed limits;
- l) if the quality or purity of the article falls below the prescribed standard or its constituents are present in quantities not within the prescribed limits of variability, but which renders it injurious to health; and
- m) if the quality or purity of the article falls below the prescribed standard or its constituents are present in quantities not within the prescribed limits of variability but which does not render it injurious to health:

Provided that, where the quality or purity of the article, being primary food, has fallen below the prescribed standards or its constituents are present in quantities not within the prescribed limits of variability in either case, solely due to natural causes and beyond the control of human agency, then, such article shall not be deemed to be adulterated within the meaning of this sub-clause.

4.3.5 Sale of Certain Admixtures Prohibited

To make things clear, admixtures of many items are clearly prohibited. For eg. Sale by himself or by his servant or agent is prohibited in case of:-

- a) Cream which has not been prepared exclusively from milk or which contains less than 25% of milk fat.
- b) Milk which contains added water.
- c) Ghee which contains any added matter not exclusively derived from milk fat.
- d) Selling skimmed milk as whole milk.
- e) Mixture of two or more edible oils as an edible oil.
- f) Vanaspati to which ghee or any other substance has been added.
- g) Any article of food which contains any artificial sweetener beyond the prescribed limit.
- h) Turmeric containing any foreign substance.
- i) Mixture of coffee and other substance except chicory.
- j) Dahi or curd not made out of milk.
- k) Milk or milk products containing constituents other than of milk.

4.3.6 Misbranded

An article of food shall be deemed to be misbranded:

- a) If it is an imitation of, or is a substitute for, or resembles in a manner likely to deceive, another article of food under the name of which it is sold, and is not plainly and conspicuously labelled so as to indicate its true character;
- b) If it is falsely stated to be the product of any place or country;
- c) If it is sold by a name which belongs to another article of food;
- d) If it is so coloured, flavoured or coated, powdered or polished; the fact that the article is damaged, is concealed or if the article is made to appear better or of greater value than it really is;
- e) If false claims are made for it upon the label or otherwise;
- f) If, when sold in packages which have been sealed or prepared by or at the instance of the manufacturer or producer and which bear his name and address, the contents of each package are not conspicuously and correctly stated on the outside thereof within the limits of variability prescribed under this Act;
- g) If the package containing it, or the label on the package bears any statement, design or device regarding the ingredients or the substances contained therein, which is false or misleading in any material particular; or if the package is otherwise deceptive with respect to its contents;
- h) If the package containing it or the label on the package bears the name of a fictitious individual or company as the manufacturer or producer of the article;
- i) If it purports to be, or is represented as being, for special dietary uses, unless its label bears such information as may be prescribed concerning its vitamin, mineral, or other dietary properties in order sufficiently to inform its purchaser as to its value for such uses;
- j) If it contains any artificial flavouring, artificial colouring or chemical preservative, without a declaratory label stating that fact, or in contravention of the requirements of this Act or rules made there under;
- k) If it is not labelled in accordance with the requirements of this Act or rules made there under.



Check Your Progress 1

Note: a) Write your answers within the space provided.

b) Check your answers with those given at the end of the unit.

1) Name the act made by India to prevent adulteration of food?

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2) What are the objectives of the PFA Act?
3) What are the salient features of the PFA Act?
4) Define adulterant?
5) Give two examples of adulteration?

4.4 COMMITTEE FOR FOOD STANDARDS

Clear mention is made on the formation of advisory committees such as:

4.4.1 The Central Committee for Food Standards

- 1) The Central Government shall, as soon as may be after the commencement of this Act, constitute a Committee called the Central Committee for Food Standards to advise the Central Government and the State Governments on matters arising out of the administration of this Act and to carry out the other functions assigned to it under this Act.
- 2) The Committee shall consist of the following members, namely:
 - a) The Director-General, Health Services, ex-officio, who shall be the Chairman;
 - b) The Director of the Central Food Laboratory or, in a case where more than one Central Food Laboratory is established, the Directors of such Laboratories, ex-officio;
 - c) Two experts nominated by the Central Government;
 - d) One representative each of the Departments of Food and Agriculture in the Central Ministry of Food and Agriculture and one representative each of the Central Ministries of Commerce, Defence, Industry and Supply and Railways, nominated by the Central Government;
 - e) One representative each nominated by the Government of each State;
 - f) Two representatives nominated by the Central Government to represent the Union territories;
 - g) One representative each, nominated by the Central Government, to represent the agricultural, commercial and industrial interests; five representatives nominated by the Central Government to represent the consumers, interests, one of whom shall be from the hotel industry;

- h) One representative of the medical profession nominated by the Indian Council of Medical Research;
 - i) One representative nominated by the Indian Standards Institution referred to in clause (e) of section 2 of the Indian Standards Institution (Certification Marks) Act, 1952 (36 of 1952).
- 3) The members of the Committee referred to in clauses (c), (d), (e), (f), (g), (h), and (i) of sub-section (2) shall, unless their seats become vacant earlier by resignation, death or otherwise, be entitled to hold office for three years and shall be eligible for renomination.
 - 4) The functions of the Committee may be exercised notwithstanding any vacancy therein.
 - 5) The Committee may appoint such and so many sub-committees as it deems fit and may appoint to them persons who are not members of the Committee to exercise such powers and perform such duties as may, subject to such conditions, if any, as the Committee may impose, be delegated to them by the Committee.
 - 6) The Committee may, subject to the previous approval of the Central Government, make bye laws for the purpose of regulating its own procedure and the transaction of its business.

The Central Government shall appoint a Secretary, to the Committee who shall, under the control and direction of the Committee, exercise such powers and perform such duties as may be prescribed or as may be delegated to him by the Committee.

4.5 GENERAL PROVISIONS ON FOOD

Clear instructions are given on aspects of import of food, manufacture and sale of food as described below:

4.5.1 Prohibition of Import of Certain Articles of Food

No person shall import into India:

- a) Any adulterated food;
- b) Any misbranded food;
- c) Any article of food for the import of which a license is prescribed, except in accordance with the conditions of the license; and
- d) Any article of food in contravention of any other provision of this Act or of any rule made there under.

4.5.2 Prohibitions of Manufacture, Sale, etc. of Certain Articles of Food

No person shall himself or by any person on his behalf manufacture for sale, or store, sell or distribute:

- a) Any adulterated food;
- b) Any misbranded food;

- c) Any article of food for the sale of which a license is prescribed, except in accordance with the conditions of the license;
- d) Any article of food the sale of which is for the time being prohibited by the Food (Health) Authority in the interest of public health;
- e) Any article of food in contravention of any other provision of this Act or of any rule made there under; or
- f) Any adulterant.

4.6 PUBLIC ANALYSTS, INSPECTORS

Provision also is given for appointment of officials to supervise the working as given below:

- The Central Government or the State Government may, by notification in the Official Gazette, appoint such persons as it thinks fit, having the prescribed qualifications to be public analysts for such local areas as may be assigned to them by the Central Government or the State Government, as the case may be.
- The Central Government or the State Government may, by notification in the Official Gazette, appoint such persons as it thinks fit, having the prescribed qualifications to be food inspectors for such local areas as may be assigned to them by the Central Government or the State Government, as the case may be.
- Every food inspector shall be deemed to be a public servant within the meaning of section 21 of the Indian Penal Code (45 of 1860) and shall be officially subordinate to such authority as the Government appointing him, may specify in this behalf.

A food inspector shall have power:

- a) To take samples of any article of food from:
 - i) Any person selling such article;
 - ii) Any person who is in the course of conveying, delivering or preparing to deliver such article to a purchaser or consignee; and
 - iii) A consignee after delivery of any such article to him.
- b) To send such sample for analysis to the public analyst for the local area within which such sample has been taken; and
- c) With the previous approval of the Local (Health) Authority having jurisdiction in the local area concerned, or with the previous approval of the Food (Health) Authority, to prohibit the sale of any article of food in the interest of public health.

4.7 PROCEDURE FOR SAMPLING, ANALYSIS AND PUNISHMENT

Any food Inspector can enter and inspect any place where any article of food is manufactured or stored for sale or stored for the manufacture of any other article of food for sale or exposed or exhibited for sale or where any adulterant is manufactured or kept, and take samples of such article of food or adulterant for analysis.

- a) Notice will be issued by the Inspector in writing then and there to the seller indicating his intention.
- b) Three samples are taken and the signature of the seller is affixed to them.
- c) One sample is sent for analysis to Public Analyst under intimation to the Local Health Authority.
- d) The other two samples are sent to the local health authority for further reference.

The following central laboratories will carry out the functions of sample analyses entrusted to it by the Act or these rules in respect of local areas indicated in the column.

Sl. No	Name of Central Food Lab	Local Areas under its Jurisdiction
1)	The Central Food Laboratory, Mysore	The states of Andhra Pradesh, Kerala, Maharashtra & Tamil Nadu and the Union Territories of Lakshadweep and Pondicherry
2)	The Central Food Laboratory, Pune	The states of Gujarat, Karnataka, Goa and Madhya Pradesh and the Union Territories of Dadar & Nagar Haveli, Daman and Diu and Delhi.
3)	The Central Food Laboratory, Ghaziabad	The States of Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan & West Bengal and Union Territory of Chandigarh.
4)	The Central Food Laboratory, Kolkata	The States of Assam, Bihar, Manipur, Meghalaya, Nagaland, Orissa, Sikkim, Tripura, Uttar Pradesh, Arunachal Pradesh and Mizoram and the Union Territories of Andaman and Nicobar Islands

The definitions and standards for quality are also prescribed. Details regarding sample weight/volume for different food products are also fixed. Again, the qualifications and authority of analysts/tests, the certificates thereof shall be supplied forthwith to the sender in Form II. Certificates issued under rules by the laboratory shall be signed by the Director.

Penalties

Guilty will be punished with imprisonment for a term which shall not be less than six months and up to 3 years and with fine up to one thousand rupees.

4.8 IMPORTANT MISCELLANEOUS PROVISIONS

A few examples of miscellaneous provisions coming under the Act are as follows:

- 1) If any extraneous additions of colouring matter are added, the same should be indicated on the labels.
- 2) From the label, the blending composition of ingredients should be clear to the customer.
- 3) Sale of kesari gram individually or as an admixture is prohibited.
- 4) Prohibition of use of carbide (acetylene) gas in ripening is prohibited.
- 5) Sale of ghee with Reichert value less than the permitted level.

- 6) Sale of admixture of ghee or butter is prohibited.
- 7) Addition of artificial sweetener should be mentioned on the label.
- 8) Sale of food colours without license prohibited.
- 9) Sale of insect damaged dry fruits and nuts prohibited.
- 10) Food prepared in rusted containers, chipped enamel containers and untinned copper/brass utensils are treated as unfit for human consumption.
- 11) Containers not made of plastic material which is not according to the standards are not to be used.
- 12) Selling salted fat for any other purpose except for bakery and confectionery is prohibited.
- 13) Storage of insecticides in the same premises where food articles are stored is prohibited.
- 14) Milk powder or condensed milk can be sold only with ISI mark.
- 15) Use of more than one type of preservative is prohibited.
- 16) Crop contaminants beyond certain specified level is treated as adulterant.
- 17) Naturally occurring toxic substances in the food material beyond certain level is considered as unfit for human consumption.
- 18) No anti-oxidant, emulsifiers and stabilizing agent is permitted beyond the prescribed level.
- 19) No insecticide should be sprayed on the food items.
- 20) Oils can be manufactured only in factories licensed for such purpose.

4.9 AMENDMENTS

The Ministry of Health and Family Welfare also gives out information on the Prevention of Food Adulteration Act and Rules and its amendments through gazette notification. Some of the related notifications on fish and fish products are given below for you to understand as examples.

4.9.1 Amendments and Changes

The amendments, draft notification of changes etc. are also available in its websites. The drafts of certain rules published through special gazette notification are opened to the public for consideration and suggestions. Vide the gazette of India extra ordinary part 11 section 3(1) dated the 11th June, 2003 under notification of the Government of India in the Ministry of Health and Family Welfare (Department of Health), number GSR 477 (E) dated the 11th June 2003, the Government invited objections and suggestions on the Prevention of Food Adulteration Rules from the public. Vide the Ministry of Health and Family Welfare Department of Health notification, New Delhi, the 21st December, 2004, the Central Government after consultation with the Central Committee for Food Standards made the following rules further to amend the Prevention of Food Adulteration Rules, 1955.

4.9.2 Specifications/Procedure Related to Fish Products

Notifications are also given through gazette even to show the limits of allowable total volatile base (Nitrogen) in frozen prawns, lobsters, squid, finfish, fish fillets, minced fish flesh etc. (requirement in raw product – TVB- not more than 30 mg/100g; cooked product- absent in 25g). The permissible histamine content = not more than 20mg/100g. Even detailed procedure on preparation of salted fish, dried salted fish etc. are given. Specifications are also given for canned fin fish, canned shrimp, canned crab meat etc.

The Prevention of Food Adulteration Act and Rules, 1954 gives the limit of mercury in fish as 0.5 ppm by weight and that of methyl mercury (calculated as the element) in the case of all foods (including fish) as 0.25 ppm by weight. During 2007-08, Toxics Link and DISHA carried out a moderately large-scale survey of methyl mercury in fish in West Bengal. About 60 samples of finfish and shellfish were purchased from 5 Kolkata markets and 204 samples were procured from different parts of West Bengal and all these were tested for mercury at SGS India Private Ltd., Kolkata. These 264 samples were spread over 56 varieties of fish and crustaceans. The results from the Laboratory were analyzed and the findings are as follows:

Main Findings

Fish Contamination

- 1) A total of 52 samples were found to have mercury concentrations above PFA standards (0.50 mg/kg).
- 2) Out of 52 such cases of excess mercury, mercury levels have exceeded by more than 50% over PFA stipulations and in 21 cases it has exceeded by more than 100% above PFA stipulations.
- 3) A total of 129 samples showed methyl mercury concentrations above PFA stipulations (0.25 mg/kg).
- 4) Out of 129 cases of excess methyl mercury concentration, 53 samples exceeded by more than 50% above PFA stipulations.
- 5) A total of 52 cases showed methyl mercury excess of more than 100% above PFA stipulations; 20 samples showed methyl mercury excess of more than 200% of PFA stipulations and eight samples showed methyl mercury excess of more than 300% of PFA stipulations.

The above results will explain to you the importance of rules on the prevention of food adulteration. Great care need to be taken on the quality of fishery products consumed in domestic as well as export markets.



Check Your Progress 2

Note: a) Write your answers within the space provided.

b) Check your answers with those given at the end of the unit.

- 1) Give two examples of admixtures?

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2) In sampling procedure, how many samples are taken?
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3) Name the central laboratory entrusted with the work of analyzing samples from Kerala?
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4) Which are the states coming under the Jurisdiction of the Central Food Laboratory, Pune?
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5) How are amendments notified to the public?
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Activity 1

Visit a local supermarket. Examine packaged food products. Read the labels. Examine more food products. Take down notes on the guidelines given in the labels to prevent adulteration of food.

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4.10 LET US SUM UP

In this unit, you were exposed to the prevention of Food Adulteration Act & rules made there under –national legislation to prevent adulteration of food and provide food safety and fair trade practices. Central Committee for Food Standards (CCFS) is responsible for advising the Central Government and State Government on matters arising out of the administration of the Act. The Statutory Committee recommends the specifications for various food articles including maximum levels of contaminants, use of additives and their maximum levels including pesticide residues, procedures for drawing up samples, sending to the laboratories, functions of public analyst and of appellate laboratories (Central Food Laboratory), labeling and licensing Rules etc. This act and its amendments aim at preventing any sort of adulteration on food articles and in food processing.

4.11 GLOSSARY

- Adulteration** : Ruining originality by addition of something.
- Assent** : To agree.

Condiments	:	That which gives flavour.
Deleterious	:	Harmful.
Emulsifiers	:	Chemical agent that maintains emulsion.
Flavouring	:	That which gives a distinctive taste.
Fraudulent	:	Imitation or counterfeit.
Reichert Value	:	The real value.

4.12 SUGGESTED FURTHER READING

Mukundan, M.K. and Balasubramaniam, S. 2007. *Sea Food Quality Assurance*. CIFT Training Manual 1

4.13 REFERENCES

The Prevention of Food Adulteration Act, 1954 (37 of 1954) along with the Prevention of Food Adulteration Rules, 1955, 2006. Published by Universal Law Publishing Co. Pvt.Ltd.

4.14 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

- 1) Prevention of Food Adulteration Act, 1954.
- 2) To protect the public from poisonous and harmful foods, to prevent the sale of substandard foods, to protect the interests of the consumers by eliminating fraudulent practices.
- 3) The salient features of the PFA Act includes objective, definition of food, meaning of adulterant, concept of adulteration, misbranded items, sale of certain admixtures, relevant committees, analysts, procedure for sampling and analysis, penalties and important miscellaneous provisions..
- 4) Adulterant is defined as “*any material which is or could be employed for the purposes of adulteration*”.
- 5) If the article contains any other substance which affects the substance or quality thereof, if any constituent of the article has been wholly or in part extracted to affect the quality there of.

Check Your Progress 2

- 1) Milk which contains added water, ghee which contains any added matter not exclusively derived from milk fat.
- 2) Three samples are taken and the signature of the seller is affixed to them.
- 3) The Central Food Laboratory, Mysore.
- 4) The state of Gujarat, Karnataka, Goa and MP and the Union territories of Dadra & Nagar Haveli, Daman, Diu and Delhi.
- 5) Through gazette notification.