

**manuals
of food quality control**

5. food inspection



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**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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Preface

FAO and WHO are developing a series of policy and operational documents for use by national food control authorities in planning and carrying out improved food quality and safety programmes. The first document in this series was entitled "Guidelines for Developing an Effective National Food Control System" (FAO Food Control Series No. 1/WHO Food Control Series No. 1, Food and Agriculture Organization of the United Nations/World Health Organization, Rome 1976), and included general policy guidance for the strengthening of food control infrastructure. This involved updating and bringing into effect laws, regulations and official policies concerning the safety and quality of food throughout the entire "food chain": from production or import through stages of processing, storage, transport and marketing to the consumer's home or to food establishments. The "Guidelines" include policy advice on the elements of food control infrastructure, including food law and regulations, food control administration, licensing, and the need for well-trained technical administrators, inspectors and laboratory personnel.

In the "Guidelines", a model food law is suggested for consideration by countries updating national food laws, and attention is drawn to the extensive work of the FAO/WHO Codex Alimentarius Commission (Food Standards Programme) in drawing up internationally agreed food standards and codes of hygienic practice. They also call attention to the need for the development of a manual for use in food inspection programmes, to give guidance to the inspectors, and to ensure uniform performance of persons engaged in food inspection work in different parts of a country.

With support from the United Nations Environment Programme (UNEP), FAO and WHO have prepared this "food inspector's manual" for general use in national food control programmes with the assistance of food control personnel from many countries. It will need to be adapted to meet local situations, but it gives general and specific inspection procedures and techniques which should be useful in food control programmes carried out by different agencies involved. Usually, several government agencies and services are involved in supervising the production and harvesting of foods, such as agricultural, health, veterinary, environmental protection, fisheries and marine ecology, and wildlife management services, and the relevant inspections are carried out by their personnel.

In some countries some food inspectors control the quality and fraud aspects of foods, while others concern themselves with food hygiene. In the opinion of FAO and WHO, more efficient utilization of manpower would result if inspectors were trained in all aspects of food inspection, making it possible to reduce duplication of effort among various agencies. This manual is therefore designed to cover all the major aspects of food inspection and can be utilized as a training aid for improving inspectors' skills and techniques.

The educational background, training, and experience of persons responsible for food inspection in many countries need improvement. The manual has, therefore, been written in as simple language as possible, to enable the average person responsible for general food inspection in developing countries to carry out a full range of ordinary inspection procedures, usually after some additional training. Methods and techniques for inspection have been selected from those used successfully on a routine basis by well-developed food control agencies to ensure that the food control system achieves its goal of satisfying policy-makers and consumers that food quality and safety are the best attainable.

The manual is designed to be portable and used as a daily working tool for inspectors. In design, Chapters 2 and 3 give general establishment inspection and sampling information. Through training and experience, the inspector should develop a deeper knowledge of those chapters and be able to utilize this information routinely without constantly re-reading it. Chapter 5 gives specific information on various inspectional procedures for various types of food establishments. The inspector will be able to utilize these chapters to refresh his memory on the points to be checked each time an inspection is carried out on new or unfamiliar types of food plants or commodities.

In preparing the manual, account was taken of special food control material already published by FAO and WHO on such topics as meat hygiene, milk hygiene, fish processing and quality, milling, etc. These are covered to the extent possible by cross-references or listing in the bibliography. It may be desirable to refer to this material when carrying out or supervising inspection procedures requiring specialized training such as meat inspection, but where exhaustive material on food inspection activities is not readily available, additional detail has been given, or added in annexes to the manual. The main aim is to present sufficient information on all major types of foods and food processing to enable the average food inspector, with some training and experience, to carry out routine inspection of many different types of food processing plants, restaurants and catering establishments, and retail operations including markets, and to follow up on consumer complaints, etc. However, food control authorities must keep in mind the

need for specially trained inspectors for complex inspection work when planning food control and consumer protection activities.

Important areas of food inspection comprise the checking of food processing and storage establishments (including, in many countries, inspection for suitability of premises and equipment prior to licensing), and the supervision of food markets and of catering and food-serving establishments. Inspection work is sometimes divided according to geographical areas (small town, rural areas, city districts, etc.) and also according to the nature of the work, special inspectors being assigned to meat inspection, large food processing establishments, etc.

No matter what the assignment or geographical area of work, the importance of adequate inspection training, supervision, and reporting systems in the development of effective food inspection services cannot be over-emphasized. An adequate background in food hygiene and food technology, with subsequent training in inspection techniques, is essential if the food inspector is to understand complex food processing procedures and food safety problems, or to judge properly whether foods comply with the food laws. Inspectors must also be provided sufficient status and remuneration to ensure that they act with integrity and have the confidence of the food industry and consumers.

The development of special training courses and of on-the-job training by experienced inspectors at the national level is urgently needed. FAO and WHO are actively involved in planning or carrying out such programmes, but it is clear that a great deal of additional attention to training at the national level is needed in order to develop an adequate cadre of effective food inspectors. Curricula for such training for general or specific programmes have been developed, and can be obtained from FAO and WHO for adaptation to local needs. With such training, food inspectors will be able to use this food inspection manual efficiently.

At the country level, a national food control strategy should be drawn up among the various agencies concerned to ensure that the role and function of each agency are clearly defined, and to promote complete coverage of all food safety and quality problems with a minimum of duplication of effort. An information-sharing network should be built up among national agencies, and among national, state and local authorities, to enable control of those problems that can arise from the movement of food from one area to another.

This manual is the first definitive issue, the previous issue (14/5 prov.) published in 1981 now being obsolete.

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1. INTRODUCTION

Overall objective

This manual is designed to present general guidelines that are applicable to a wide range of food inspection activities. It will assist the inspector to work effectively in various sectors of the food industry by providing a uniform approach to both inspection and sampling. The manual is complementary to the FAO/WHO "Guidelines for developing an effective national food control system", prepared in conjunction with the United Nations Environment Programme. It also draws upon the work of the FAO/WHO Codex Alimentarius Commission.

The manual is intended to outline techniques, procedures, recommendations and standards which are generally considered to constitute good manufacturing and sanitary practice in the food industry. In countries where food inspection and control do not have an established history, certain recommendations may have to be viewed as a target or goal to be reached through incremental steps as the food inspection and control programme develops and the general principles of sanitation become accepted and understood. Religious, social, cultural and political values of different countries are other factors which could also influence adoption of certain recommendations.

GENERAL INSPECTION PHILOSOPHY AND APPROACH

Individuals involved in food inspection can have a range of titles depending, in large measure, upon the government agency in which they are employed. They may be called food inspectors, food and drug inspectors, environmental health officers, food safety officers, public health inspectors, veterinary food hygienists, food inspection specialists and food safety control officers, to name but a few current designations. In almost all jurisdictions, the inspector is officially recognized under the legislation which authorizes inspection of food manufacturing, storage and service facilities.

The inspector occupies a key position in the food control service. He is the eyes and ears of his agency and must be able to recognize, collect and transmit evidence when a violation has occurred. He collects samples for routine or for special

analysis. He should be trained to detect many forms of decomposition or unfitness in foods by sight, odour and possibly taste. He should be trained to inspect various types of food establishments for compliance with sanitary requirements and hygienic practices. He cooperates with other food officials at the local levels. He instructs food packers and handlers in hygienic practices and in good manufacturing practices, and encourages voluntary compliance. He investigates the complaints of consumers about the safety or unwholesomeness of foods and any other reports concerning possible violations of the food law. He often participates in consumer education.

When dealing with the food industry, the inspector should be familiar with the relevant legislation and regulations so that he may provide intelligent answers regarding the basic intent or purpose of the legislation. The role of the food inspector is that of a professional with responsibility for inspection and investigation. While sample collection is an essential part of his duties, this should not be considered as the fundamental task of the food inspector.

If reliable inspectors, capable of doing all these things, are to be recruited and retained, they must be paid salaries and given recognition commensurate with their responsibilities and special training. Inspectors should be provided with sampling and inspectional equipment and with transportation facilities. In many developing countries, the work of food inspectors is greatly hampered by lack of transportation.

It is also important to recognize that the duties and responsibilities of a food inspector for both inspection and sampling are carried out under the authority of the food law or administrative procedures set out thereunder.

In carrying out an inspection, the inspector should contact the person in charge of the establishment in a dignified, cordial manner, identifying himself or herself as an authorized official. Appropriate credentials should be presented, upon request. The purpose of the visit or inspection should be explained to prevent any future misunderstanding.

In dealing with the food industry and food trade, the inspector should exercise knowledge, intelligence and a sense of fair play in a way that will command respect. The attitude of the inspector to the industry should be conditioned by the fact that food control legislation is, in a sense, a self-policing law. In other words, it establishes many standards with which voluntary compliance is expected and does occur to a large degree. The inspection agency and ethical members of the food industry share the same objective: to provide the consumer with safe products under fair and equitable conditions of sale. The inspector should, therefore, offer

leadership to the industry and trade and reserve a firm and uncompromising posture for those whose conduct indicates a wilful disregard for the public welfare.

In most countries, the inspector should regard himself primarily as an educator and not as a policeman. This educational approach is particularly important as a means of upgrading sanitation and improving awareness of food safety in smaller food manufacturing operations which form the bulk of the food industry and trade in the developing world.

Organization of the manual

The manual deals first with general inspection techniques which are applicable or common to all food manufacturing, processing and storage operations. The remainder of the manual is addressed to various aspects of sampling, specific inspection techniques, export-import surveillance, compliance, development of evidence, special investigations and food-borne disease control.

Social and economic impact on food inspection and control

As a public health measure, food inspection and control play an important role in preventing food-borne illness with its attendant human suffering, misery and death. Maintaining a safe, nutritious food supply also helps to maintain the general health of the population, reduces sick leave at work and reduces health care and hospital costs.

Food inspection also plays an important role in preventing commercial fraud and adulteration of food, thus protecting the consumer from economic loss and ensuring that he receives full value for money spent.

An effective food inspection programme can also play a vital role in food security by helping to reduce food losses due to rodents and insects. It can also assist countries becoming involved in the international food trade by assuring importing countries that food products are manufactured, processed and stored under good manufacturing conditions in compliance with internationally recognized standards.

While having great social and economic benefit to domestic populations, food inspection also has a considerable impact on tourism. Many developing countries are trying to develop tourism as a component of an overall economic strategy.

Illness of tourists that can be traced to restaurants and food service establishments, in particular, could become a severe impediment in developing and maintaining a tourist industry. Stories about food-borne illness and disease soon circulate widely among the target tourist populations in other countries.