manual of food quality control

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first revision
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Since its publication in 1979, *food for export* has become a standard reference for governments and others interested in the improvement of quality of foods for export. In many respects, it has also served as a 'Do-It-Yourself' manual for those desiring to establish a national export quality control and inspection system for foods and agricultural products and the agency to administer it. Its detailed descriptions of the essential elements of an export inspection system still stand in principle, and the philosophy upon which they are based still holds. That is to say, the successful and profitable international marketing of food and agricultural products depends very largely on the assured quality of the products and their compliance with the mandatory or statutory requirements of importing countries.

During the past decade the international trade in food has grown significantly so that today it is enormous, with a value of some hundreds of billions of dollars. Two contributory factors to that growth have been the increase in number of previously non-food exporting countries that have become exporters, and the number of traditional food exporting countries that have increased both the product range and volume of their exports. Of the new food exporting nations the majority are developing countries who formerly restricted food production to meet domestic requirements but who now recognize the foreign exchange gains to be made from producing and exporting foods.

Accompanying this rapid growth of the global trade in food has been an equally rapid growth in the number of importing countries applying minimum entry requirements relating to the safety, wholesomeness and quality of foods. The relatively recent awakening of a consumer consciousness, the activities of the Joint FAO/WHO Food Standards Programme and the increased activities of national food control agencies have largely been responsible for this ever increasing control being applied by importing countries. Compared to say, one hundred years ago, there are now relatively few countries in the world that do not have some legal requirements for foods for human consumption that apply not only to local products but imported products as well. It is, in fact, fair to claim that requirements of food importing countries are now widespread and varied, sometimes complex and demanding, and seemingly ever increasing. In addition, many more food importing countries than ever before are requiring consignments of foods to be accompanied by certificates issued by the government of the exporting country attesting that the products meet their statutory import requirements.

Associated with those demands has been a strengthening of food import control programmes by both developed and developing countries involving more intensive inspection and examination to ensure both the compliance of food products with
mandatory import requirements and the validity of certificates issued by exporting countries.

Needless to say, these developments have made it almost a necessity for the government of any country wishing to export food to make official arrangements to ensure that its products comply with the requirements of importing countries and to issue the required certificates. This has obliged many food exporting countries to establish food export quality control and inspection agencies, and where these already exist, to strengthen them. To do less is to risk detention of product by the importing country or, even worse, suffer its rejection and the severe associated financial losses.

This, the first revision of *food for export*, while retaining the structure and subject headings of the original document, takes into account the developments in the international food trade that have occurred in the intervening years. In addition, the revision reflects practices currently adopted by food exporting countries with well established food export control systems, in response to the demands of importing countries. It also highlights and expands those areas, such as food safety and certification, requiring the closest attention by exporting countries if their food products are to compete successfully on foreign markets. Amongst other things, the revision includes an annotated model Export Food Control Law for consideration by those countries contemplating the introduction of export food control.

It is sincerely hoped that the revision, like the original, will continue to be a useful guide to national authorities contemplating the control of their food exports to meet the often demanding requirements of food control agencies of importing countries. It is also hoped the revision will assist food exporting countries to more successfully compete in an international trade that is extremely complex and highly competitive.
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CHAPTER I

GENERAL CONSIDERATIONS

INTRODUCTION

Increasingly, developing countries, in much the same way as developed countries, are resorting to national development planning to cope with the complexities of improving and administering state economies. Without exception, those national development plans adopt as a basis a concerted community effort to generate resources and increase national income. In that context, the importance of agricultural production and the successful marketing of food on foreign markets as a means of increasing both national and personal incomes takes on a special significance.

The international marketing of food is big business and for many exporting countries, especially developing countries, their major source of foreign exchange and hence an essential part of their National Development Plans. Consequently, Export Quality Control and Inspection Systems have been, or are being, established by many, and certainly the most important, food exporting countries as part of their international marketing strategy.

To compete effectively with other food exporting countries and maximize foreign exchange earnings, each exporting country must ensure that its food products are of sufficient quality to be acceptable and competitive on foreign markets. This is not an easy task. The international food trade is extremely competitive and the requirements of the most lucrative markets are the most sophisticated and demanding. The task is sometimes made more difficult by unscrupulous exporters seeking larger profits by adopting dishonest practices that may threaten the health of consumers or tarnish their country’s commercial image, or both. All responsible food producing countries endeavour to ensure the acceptability of the quality of the food they export as well as adopt measures to prevent or thwart dishonest practices in the export food trade.

Because of their important role, national Export Quality Control and Inspection Systems have become an integral part of the big business of international food marketing. Those systems do not merely involve groups of skilled people controlling and inspecting food for export purely for the sake of doing so. They do it to protect consumers in foreign markets and to ensure that the products they control are acceptable and can be marketed profitably.

In essence, countries establish Export Quality Control and Inspection Systems for foods to:

meet the mandatory requirements of importing countries;
compete successfully and profitably on foreign markets with other countries exporting similar products;

establish their national reputations as reliable suppliers of high quality products;

protect their food industries against the possibility of product being detained or rejected at point of import with a consequent loss of foreign exchange; and,

prevent the unscrupulous activities of dishonest exporters.

The purpose of this revision remains unchanged from the original manual; that is, to focus on the importance of quality control and inspection as it applies to the marketing of food for export, to establish the vital role played by Export Quality Control and Inspection Systems in protecting consumers and meeting the statutory requirements of importing countries, to consider the elements that are essential in establishing such a system and to demonstrate how such a system may be applied to selected groups of products.

The plan of the revised manual is simple. The early chapters deal with general issues and identify the essential elements of Export Quality Control and Inspection Systems while the later chapters describe and discuss those elements in detail. Guidelines are also provided to assist with assessing whether the establishment of an Export Quality Control and Inspection System would be justified and, if so, what planning and infrastructure is required.

An important aspect of the revision is the emphasis it places on those aspects of export food control of current concern. Accordingly, the subjects of food safety, certification, and attitudes adopted by food importing countries, to mention but three, have been given greater prominence than formerly.

LEGISLATION

Consumers are now more concerned about what they eat than ever before. There concern is of such a magnitude that food has become a political issue. Consumers are clearly and loudly telling their political representatives that they want to be sure that what they eat and drink is safe and will not threaten their health, is wholesome and that it is properly described.

Politicians and governments have reacted by either introducing new food control laws or revising and strengthening existing ones. In developing countries in particular, planners of national policy have been virtually compelled to recognize that statutory food controls are a prerequisite to the achievement of national goals associated with particular social and economic programmes. For example, economies in the public health area cannot be achieved if the level of hospitalization as a result of food related diseases remains high. Nor can national income from food exports be relied upon if
rejections on foreign markets persist and sales lost as a result, making income estimates difficult, if not impossible, to predict.

Without comprehensive and effective food legislation, and the enforcement mechanism to give it effect, it is not possible to ensure that the production and handling of food is hygienic, free from contamination and properly described. Countries without effective food control systems can neither assure their populations that supplies of food are safe and wholesome, nor satisfactorily sustain their export food trade. Experience has demonstrated that strong effective food laws generate healthy attitudes in the food trade and encourage the development of a strong social responsibility towards the wellbeing of consumers.

CONTAMINANTS AND FOOD SAFETY

The rapid and continuing growth of global population, together with the movement of people to cities, has placed great demand on agriculture for increased food production. To meet this demand, farmers have resorted to the greater use of fertilizers, insecticides, herbicides, growth promotants and other agricultural and veterinary chemicals. Large quantities of chemicals are also used in reducing post harvest loss of foods, and during food storage pesticides are employed to prevent or reduce damage and destruction by insects, rodents and other vermin. Pesticides and other types of chemicals are also widely used in food processing plants to control vermin and to achieve satisfactory levels of hygiene. In addition, a wide range of additives including preservatives, colours, flavours, emulsifiers, anti-oxidants and artificial sweeteners are used in the manufacture of processed foods.

While the use of these materials is deemed necessary to satisfy the food requirements of a growing world population, consumers have become concerned about the effect of those materials and their residues on human health. The relatively recent awakening of a consumer consciousness and the activities of national food control agencies have brought to public attention, as never before, the threat to consumer wellbeing from hazardous substances in foods. Generally speaking, consumers are most at ease with food hazards they can see, feel, taste and smell. It is the invisible hazards of additives, residues and contaminants in their minute quantities that cause consumers most concern. The fear of ill health or even death from unseen hazards evokes a loud demand for protection, a demand that finds expression through the media, politicians and law makers.

In recent years, food safety has received extensive media exposure. Feature articles about it are common enough in both national and international magazines and papers. References to the need for consumer protection against hazardous materials in food are frequently the subject of official documents and papers, some of them prepared for governments and consideration by national parliaments and assemblies. The subject of food safety has been increasingly appearing on the agenda of
international meetings and consultations, and recent meetings of subsidiary bodies of
the prestigious General Agreement on Tariffs and Trade (GATT) have recognized its
importance in international trade.

Essentially, current major food safety concerns relate to the following types of
contamination:

Micro-organisms causing outbreaks of food borne disease. e.g.’s salmonella,
listeria, shigella.

Residues of agricultural chemicals (pesticides, rodenticides, herbicides,
fungicides etc.) and veterinary drugs. e.g.’s sulpha drugs, antibiotics, hormone
growth promotants.

Mycotoxins. e.g. aflatoxin.

Environmental contaminants. e.g.’s cadmium, lead, mercury, zinc.

Food additives, especially those to which significant numbers of consumers are
hypersensitive such as sulphur dioxide and tartrazine.

Filth. e.g.’s dirt, insect parts, urine, insect and animal droppings, hair.

Excessive radioactivity. e.g. radionuclides.

Consumer concern about food safety together with the activities of international
initiatives (such as the Joint FAO/WHO Food Standards Programme) with emphasis
on the protection of consumer health and the adoption of fair practices in the food
trade, have heightened the desire and endeavour of national governments to ensure
that all foods presented to consumers are safe. The result has been the adoption by
an increasing number of countries of statutory requirements for both locally produced
and imported foods.

As it is unlikely that the use of agricultural and veterinary chemicals, and food
additives will cease, so it is unlikely that the incidence of residues, sometimes at
excessive levels, will disappear. Similarly, it cannot be expected that the threat to
consumer health from microbiological agents, mycotoxin and environmental
contaminants will suddenly go away. Consequently, it can be confidently predicted
that consumer concern about food safety will persist and that consumers will continue
to demand that political steps and administrative measures be taken to assure that
food for consumption in no way poses a health hazard.

The message for food exporting countries is quite clear - ensure your products
comply with the mandatory requirements of importing countries or run the very real
risk of having them rejected at considerable financial loss to the exporter and the country and resulting in damage to the commercial reputations of both.

LABELLING

Consumers expect the labelling on food to be a true description of what they are buying. Misleading or fraudulent labelling is an unfair trade practice that cannot be tolerated. To protect consumers, most countries now have labelling laws stipulating how foods are to be labelled and what information labels must contain. Most, if not all, of those laws have the common requirement that the label should bear;

- a statement of identity and a true, as distinct from misleading, description of the product,
- a declaration of net contents (weight or number of pieces),
- the name and address of the manufacturer, packer, distributor or consignee, and
- a list of ingredients (in descending order of volume or weight).

In addition, labels may also be required to include, amongst other things, the country of origin, date of manufacture or packing, a use-by or expiry date, nutritional qualities or values of the food, storage directions, a quality grade and directions for preparing the food.

More frequently than is often realized, consignments of food exports arriving on foreign markets are not permitted entry because the labelling does not comply with the mandatory requirements of the importing country. This sometimes results in consignments being rejected, but more often in them being withheld from entry until the labelling is corrected or new labelling applied. In either case, trade is interrupted and the cost involved may make sales unprofitable. It is essential therefore, that exporters be familiar with the food labelling requirements of importing countries.

DETENTIONS AND REJECTIONS

As a result of the failure of food exporting countries, particularly developing countries, to comply with statutory requirements of importing countries, the situation has been reached where the levels of detentions and outright rejections of foods on arrival at destinations have reached alarming proportions.

Details of food imports released by the United States Food and Drug Administration indicate that significant quantities of product are at least detained, and at worst rejected, because they fail to meet U.S. food laws. A wide spectrum of foods
is involved and includes fish products (fresh canned and frozen), fresh fruits and vegetables, processed foods, coffee and cocoa beans, canned fruits and vegetables, spices, dried products, bakery products, dairy products, cereals and flours, and pastas and noodles. Reasons given for the detentions include:

Non compliance with labelling requirements.

Decomposition.

Insect and animal filth and damage.

Use of prohibited additives.

Non compliance with requirements of the U.S. low acid canned food regulations.

Heavy metal contamination.

Excessive levels of pesticide residues.

Excessive levels of mycotoxin.

Mould infestation.

Microbiological contamination.

Swollen and otherwise faulty cans.

Although the value of detentions and rejections is not readily available, it would undoubtedly be very high for say, a calendar year reflecting significant financial loss to exporters and the national incomes of their countries.

While the foregoing relates to the U.S.A. experience, because it is the only country that currently publishes data about detentions and rejections of food imports, it can be safely assumed that record more or less reflects the experience of other food importing countries. It might well be asked why such significantly high levels of detentions and rejections of food imports take place. Undoubtedly the reasons are many and varied. However, the evidence shows that the most important reasons include:

the inability of some export food industries, especially in developing countries, to handle, process, package and transport products to meet the mandatory requirements of importing countries,

lack of awareness by food exporting countries of the mandatory requirements of importing countries, including certification,
lack of adequate export control programmes and related agencies in food exporting countries, preventing them from exercising the necessary product surveillance and giving reliable and credible certification, and

a lack of communication between food control authorities and agencies in exporting and importing countries.

All four can be remedied by governments if they possess sufficient political will to take the necessary steps to do so.

EXPORT QUALITY CONTROL AND INSPECTION SYSTEMS FOR FOODS

Some food-exporting countries have had Export Control and Inspection Systems for many years - one for example, for nearly 100 years and a number for 30 years or more. All have been established for the reasons given above, but most importantly to increase the sales of their food products on foreign markets.

The earliest systems were established during a period when the statutory requirements of importing countries for foods were either nonexistent or simple to meet. As a result, those systems established their own standards of quality control and the specifications products had to meet before they were eligible for export.

With the advent and development of a food consciousness amongst consumers, stimulated by the work of the Joint FAO/WHO Codex Alimentarius Commission through its elaboration of food standards, codes of hygienic practice and the Code of Ethics for International Trade in Food, an increasing number of countries have adopted sophisticated food laws and established food control agencies, some with the aid of FAO. Consequently, those countries no longer accept products on trust that they are satisfactory, but instead, demand that food imports meet the requirements of their food laws and pass inspection by their control agencies. Moreover, many of them require exporting countries to certify that products comply with their national legislation and some also require additional special declarations.

As a result of these developments the emphasis of activity of Export Quality Control and Inspection Systems has changed. Although most of them still establish their own standards of quality control and adopt grade standards for foods for export, most of their effort and resources are now directed at ensuring that foods for export meet the mandatory requirements of importing countries and providing the necessary associated certification. To do otherwise is to invite either the detention or, at worst, rejection of product at point of entry.

No longer can food exporting countries assume that there is a good chance products not complying with the requirements of importing countries will escape
detection and find their way to the consumer. Inspectors are now better trained and
detection equipment and procedures more sophisticated. Most food importing
countries now have "risk lists" of exporting countries with a history of contravention. For
obvious reasons, products from high risk countries receive special attention, and
importers frequently offer lower prices for those products knowing that there is a greater
possibility they will not be permitted entry or are defective in some way.

Attitudes, too, of food importing countries towards food exporting countries are
also changing. Until recently, the former appeared content to fill the role of guarding
the wellbeing of consumers by checking and examining consignments of imported
foods at considerable cost in terms of money and resources. Now, however, as a result
of the ever increasing magnitude of the task and an explosion in associated cost, many
food importing countries are adopting the attitude that it should be more the
responsibility of exporting countries to ensure that their products, for which they receive
the profits, are safe, are of an acceptable standard and meet the mandatory import
requirements. The result is that certification as to compliance from exporting countries
is being increasingly sought by importing countries with a hardening of attitude when
certification is found to be unreliable and product unacceptable.

The situation has been reached where food exporting countries can ill afford to
be without some sort of Export Quality Control and Inspection System which can at
least provide the mandatory certification required by importing countries. The purpose
of this manual is to help and guide those in establishing such a system or in
strengthening an existing system. This manual also attempts to provide information
and guidance to relevant government, non-government, industry and consumer
organizations associated with and concerned about the scientific and orderly
development of a food industry and international trade.
NEED FOR AN EXPORT QUALITY CONTROL AND INSPECTION SYSTEM

The establishment and administration of an Export Quality Control and Inspection System (EQCIS) is costly. Quality control and inspection without justification is wasteful of resources and may be counterproductive. Consequently, the decision to establish an EQCIS should not be taken lightly. The decision should stem from a strong political conviction and a genuine desire to compete successfully with other exporting countries on international markets. To achieve this it is necessary to export only those foods that:

- are safe and will not threaten the health of the consumer;
- conform with established standards;
- at least compare favourably in quality with similar foods marketed by competitors; and
- most importantly, comply with the mandatory requirements of importing countries.

To establish a system without the necessary political conviction may result in that system being ineffective and its reputation falling into disrepute amongst importing countries. This should never happen because it tarnishes a country’s national image of being a reliable supplier of safe food of acceptable quality.

In deciding whether an EQCIS is needed the following questions should be asked.

Is the export trade in food products sufficient in terms of foreign exchange earnings?

This is a most important consideration. It is significant that most, if not all, countries having an EQCIS for foods depend heavily on exports of those foods for an important proportion of their foreign exchange earnings. Moreover, there is also a strong national identification with the products exported (India with spices, Canada with wheat, Australia with meat), an expectation that the export of those products will continue, a promising outlook for new markets and confidence that continuing demands for the products will result in prices paid for them remaining profitable.
Is an EQCIS affordable?

Making decisions about how best to utilise limited funds and available resources is an ever present problem for national governments. Consequently, an important consideration is, how much would the establishment and operation of an EQCIS cost? Put another way, would the cost of carrying out inspections, sampling and analyzing products and issuing certificates, amongst other things, be worth it? If the cost is greater than the value of the products inspected and exported then, on the basis of cost alone, it would not be worth it. On the other hand, if the value of the products inspected and exported significantly exceeds the cost of the service provided by an EQCIS, then it would be worth it.

Major costs associated with the establishment of an EQCIS include, training personnel, establishing laboratories, locating export inspection staff and facilities at critical points within the country and providing administrative facilities.

Is an EQCIS necessary to provide the certification required by importing countries?

Certification requirements of importing countries have increased and are expected to continue to increase. Many of those countries require Plant Health (Phytosanitary) Certificates to accompany plant products declaring that they are free from pests and diseases, and giving details of any disinfestation treatments to which the products may have been subjected. All countries importing meat and meat products require Animal Health (Veterinary) Certificates declaring that the animals from which the products were derived were healthy and free of disease. Increasingly, importing countries are requesting additional declarations on Veterinary Certificates in relation to freedom from specific pests and diseases and medications that may have been administered to the source animals.

As a result of increasing concern by Public Health authorities and consumers about the health risks associated with pesticides, food additives, growth promotants, environmental contaminants and a range of other materials, there is a growing demand for "freedom from" and "non-use of" certification. Providing such certification is often time consuming and costly.

It can be expected that the demands by governments of importing countries for certification associated with safety matters will increase as public awareness of, and concern about, those matters increases.

It is important that governments of exporting countries have sound arrangements for giving certification that is correct and therefore reliable. Exporting countries that do not take the issuing of certificates seriously, or do not have the facilities for ensuring that the certification they give is correct, quickly assume a reputation for being unreliable and as a result, their credibility suffers. Once lost, credibility is difficult to regain.
Have costly consignments of food products been rejected by importing countries or have there been significant numbers of complaints received from them?

Rejections of product are costly and generally result in financial loss to exporters and the exporting country. Rejections, and to a lesser extent, official complaints, may also result in prohibitions being applied to further consignments of the offending products. This in turn leads to the commercial reputation of the exporting country becoming tarnished in the eyes of the entire international marketing community.

Therefore, an important consideration is whether the number and nature of rejections and complaints is sufficiently large and serious enough to require official intervention by the appropriate authorities of the exporting country and the consequent establishment of an EQCIS.

Has the Export Food Industry requested export quality control and inspection?

The effective operation of an EQCIS depends very much on industry cooperation. In general, exporters resist official involvement in commercial and trade activities preferring to be self regulatory. However, in circumstances where:

their markets are in jeopardy because of stringent requirements imposed by the governments of importing countries and with which they are having difficulty complying; or

the activities of unscrupulous and dishonest exporters in their own country are undermining the integrity of honest exporters and thereby threatening national credibility; then,

they may seek official intervention by their government and the establishment of permanent official arrangements to cope with further similar situations when they arise.

There are exporters too, who see a significant marketing advantage in having product that has been subjected to export quality control and inspection stamped with an 'EXPORT APPROVED' mark. Those exporters claim that such a mark is viewed by foreign importers as an official guarantee that the products to which they are applied are up to standard and more likely to comply with official import requirements and meet the quality expectations of consumers. For these reasons they believe export approved products marked as such bring premium prices and are examined less intensively by food import control agencies.

Are the skilled people necessary to establish an EQCIS and its associated support facilities available?

An effective EQCIS depends heavily on both sound administration and consistently good inspection practices by dedicated administrators and professionally
trained inspectors and scientists of impeccable integrity. In most cases, ready-trained and experienced staff is not readily available and lengthy and costly training of available personnel is required.

Additionally, laboratory facilities staffed by technically competent professionals are required for the microbiological, chemical and other food quality and safety related analyses associated with inspection. Some certification requirements of importing countries necessitate complex analytical procedures using sophisticated equipment requiring operation by highly qualified scientists.

Such support services are relatively costly and decisions about where to locate them, how they should be equipped and the level of staffing required are difficult to make. Nevertheless, they are an essential part of an EQCIS and can not be done without.

While the foregoing considerations are important in deciding whether the establishment of an EQCIS is justified, it must be said that the successful participation of food exporting countries in international trade without an EQCIS is becoming increasingly difficult. As stated repeatedly above, the statutory requirements of food importing countries are now such that the entry of foods is largely, if not entirely, dependent on satisfactory certification by a recognized agency of the exporting country that those foods are in compliance. Those countries without an EQCIS are likely to find their markets becoming increasingly restricted and their entry to new ones prevented.

THE VALUE OF EXPORT QUALITY CONTROL AND INSPECTION SYSTEMS

An effective EQCIS goes far to establishing a country’s reputation as a reliable supplier of food products of acceptable quality. This in turn leads to buyer confidence, credibility in the eyes of the food control agencies of importing countries, freer movement in international trade, higher prices, the prospect of repeated orders and access to new markets.

Experience has shown that an EQCIS has the effect of generating a quality consciousness within the food industry with beneficial results for not only the export industry but domestic consumers as well. For example, in some countries with an EQCIS the food industry produces to export standards only, with product in excess of export requirements being placed on the domestic market.

It is significant that in countries where the export food industry has experienced the benefits of an EQCIS and the System has become an integral part of the export marketing strategy, that industry has objected strongly when any suggestion has been made that the operation of the EQCIS cease or that its responsibilities be reduced.
TYPES OF FOOD EXPORT QUALITY CONTROL AND INSPECTION SYSTEMS

There are two principal types of EQCIS, namely:

Statutory, and

Voluntary.

Statutory Systems are the most common. They have a legislative base, that is, they are supported by laws, regulations or other legal instruments that can be enforced. For example, India has, The Export (Quality Control and Inspection) Act 1963 and The Export (Quality Control and Inspection) Rules 1964; Australia had the Commerce (Trade Descriptions) Act 1906 and now the Export Control Act 1982 and associated regulations and orders; and China has The Law of the People’s Republic of China on Import and Export Commodity Inspection 1989, The Provisional Law of the People’s Republic of China on Food Hygiene 1982 and the Provisions of the People’s Republic of China on Sanitation of Food for Export.

Voluntary Systems are now few and far between. As they have no basis in law in the same way as statutory systems, they depend for their effectiveness on the cooperation of industry members in complying voluntarily with the requirements of the system. For example, in Turkey dried vine fruits and hazel nuts are subject to export quality control and inspection by industry cooperatives who set quality standards and employ inspectors.

However, because governments of food importing countries generally have a problem with accepting the objectivity, and hence the credibility of industry self-regulation in the field of food quality control and safety, more of them are insisting on certification from governments of exporting countries as distinct from industry organizations. Consequently, voluntary systems are becoming fewer.

ELEMENTS OF A FOOD EXPORT QUALITY CONTROL AND INSPECTION SYSTEM

The experience of countries with an EQCIS demonstrates that to be optimally effective a system must possess certain elements. Briefly, they are as follows:

A Sound Legislative Base Comprised of a Law and Regulations.

This gives power to the government to regulate the export of foods so that, amongst other things, food exported complies with the provisions of the law and regulations, is labelled and marked in accordance with the prescribed requirements and has been prepared, handled, processed, packed, stored and transported under hygienic and satisfactory conditions.
A Competent Inspection Service

Legislation is only as good as its implementation and enforcement. Poor implementation and enforcement makes for an ineffective law. Thus, an export quality control law is only as effective and strong as the Inspection Service that implements it.

Effective Methods of Inspection

All export inspection is relatively expensive and becomes more so as the inspection becomes more intensive. That is to say, continuous inspection with inspectors present full-time at each stage of the food preparation and handling chain is much more expensive than say, part-time monitoring or inspection restricted to examination of selected samples of end product. It is therefore essential in achieving the purposes of the export control to determine the most desirable effective and least expensive method of inspection.

Adequate Technical Support Services

Physical inspection of food products for export involving the inspectors's senses remains as fundamentally important as ever. However, food safety with its emphasis on the 'invisible' - microorganisms, residues, toxins, nucleides and additives - demands laboratory examination using sophisticated equipment operated by technically qualified personnel. An EQCIS without such facilities is handicapped to the point where it could be said not to be an EQCIS at all. It could not, for example, meet most of the certification requirements of most of the food importing countries for processed foods at least.

Moreover, for an EQCIS to be effective, its inspectors need inspection manuals, inspection equipment and training in how to use it, product information and developments in technology, all of which require the EQCIS to have a technical support service as part of its infrastructure.

Sound and Well Defined Administrative Procedures

It must never be forgotten that the principal purpose for establishing an EQCIS is to improve and sustain export performance by assisting food exporters, not hindering them. An EQCIS that is officious, non-cooperative, intent on inspection for inspection sake and furthering its own interests as distinct from those of exporters is failing in its duty and in all probability will be counterproductive.

An effective EQCIS will facilitate the activities of exporters by adopting administrative procedures that are 'exporter-friendly' by way of being as simple as possible, not time consuming, accommodate the exporter's shipping deadlines and, as far as possible, avoid inconvenience to the exporter.
A Formal System of Marking and Certification

To assist an exporter to trade his food products as successfully as possible an EQCIS should provide for those products approved for export to be marked as such, and for the exporter to receive a certificate for his commercial use that attests to the fitness of condition of his products at time of export.

The above essential elements of an EQCIS are dealt with in detail in other places in this manual, especially in Chapter VI, 'Infrastructure for Food Export Quality Control and Inspection Systems'.

THE PLACE OF AN EXPORT QUALITY CONTROL AND INSPECTION SYSTEM IN RELATION TO THE NATIONAL FOOD CONTROL SYSTEM

In planning the establishment of an EQCIS every effort should be made to ensure that it is an integral part of the total national food control system. To have an EQCIS that is an entirely separate entity with its own laboratory and technical service, inspection and administrative staff and operating in isolation will almost certainly be wasteful of resources and cause disruptive resentments.

Wherever possible, unjustified duplication should be avoided. Those responsible for formulating export standards for individual products and groups of products should be closely acquainted with those elaborating standards for domestic products and, if possible, work with them. It might also be possible for the same inspectors to inspect both for domestic and export purposes and for laboratory and technical facilities to service the control of both products for local consumption and export. Rather than have inspectors specializing in the control of single products it may be possible to train multi-skilled inspectors who can be switched from one product to another depending on circumstances. A device such as this can result in significant savings, improved resource use and the maintenance of a higher level of interest amongst staff.
CHAPTER III
Developing an Export Quality Control and Inspection System for Foods

NATIONAL OBJECTIVES

The establishment of an effective, efficient and successful EQCIS for foods must be preceded by careful and meticulous planning. An EQCIS designed for one country may not comfortably adapt to the circumstances of another because of differences in social conditions, economic circumstances, legal philosophies and practices, and systems of government.

The reasons why countries establish EQCISs or, in other words, their objectives in doing so, are enumerated in Chapter I. However, there may be other ancillary objectives for establishing an EQCIS which vary from country to country. For example, one government might also use its System to prevent avoidable losses of foods during processing, transport, storage and handling while another may use its System to achieve a general improvement in quality of its food products. Another may use its EQCIS to encourage and facilitate an orderly development of its food industry and associated trade.

Countries may also differ in the way they operate their EQCIS to achieve their objectives. In some countries, for example, an EQCIS may largely limit its activities to ensuring export products meet the requirements of importing countries. In other countries, the EQCIS, while paying attention to importing country requirements might also assist exporters by monitoring importer specifications and providing certification that those specifications have been met by the exporter. In some countries, EQCISs, at the request of the food control agencies of importing countries, carry our certain checks to ensure that specific trade requirements such as, fat thickness on meat, are met.

In summary, while the principal objectives of having an EQCIS as set down in Chapter I are universal, individual countries may also have other ancillary objectives. Furthermore, the EQCIS that suits one country may not suit another and careful planning is required to tailor a System that fits comfortably into the national circumstances of each individual country. Of course, this does not mean that an existing EQCIS in one country cannot be used as a model for creating a System in another country, with modifications being made as necessary.

ESTABLISHING PRIORITIES

Each country must carefully determine its priorities in establishing a programme for utilizing its national, and often scarce, resources. The fewer the resources the harder the
task and the more difficult it is to decide how to get the maximum return from each unit of resource invested.

Before establishing an EQCIS, a country must clearly establish what returns it expects from investing resources in such an enterprise. Having decided to establish the EQCIS it must plan to ensure that those expectations are realized by identifying the EQCIS’s operational priorities; Where should the EQCIS direct its greatest effort? How extensive should its operation be? Which export products should it control? Should it charge exporters for its services? Decisions associated with those questions, amongst others, will influence whether an EQCIS comes up to expectations. A discussion follows of some aspects to be considered in making those decisions.

Where should an EQCIS direct its greatest effort?

This question will largely be answered by the stated purpose for establishing the System. If it is for the purpose of ensuring that product complies with the requirements of importing countries, then the EQCIS will concentrate on assembling a data base of the mandatory import requirements for the most important markets and gear its inspection and certification activities to preventing detention and rejections because of non-compliance. Considerable effort will be directed to establishing strong contacts at both administrative and technical levels with officials of import food control agencies to facilitate information exchange as a means of preventing detention and rejections rather than trying to reverse them after they have occurred.

If it is for the purpose of increasing export volume and foreign exchange, the EQCIS will direct its efforts at improving product quality by introducing standards and grades that attract premium prices. It will also concentrate on strengthening quality control by paying attention to critical points in food preparation and processing and by demanding strict adherence by industry to good manufacturing practices. It will also encourage new product development by industry as well as advise industry about the ways in which it can improve its quality performance and compete more effectively with other exporting countries.

If it is for the purpose of protecting the reputation of a product which is profitable and for which the country is renowned, the EQCIS will direct much of its effort to seeing nothing is done that will threaten the trade in that product or detract from its reputation and the recognition it bestows on the country. The EQCIS will adopt control procedures that ensure uniform product quality and the exclusion from export of product that is substandard or even suspect. Particular attention will be paid to preventing unscrupulous exporters from involvement in dishonest practices that may damage the trade in the product and threaten the credibility of the country as a reliable supplier.

In determining other areas in which the EQCIS should direct its efforts, the EQCIS will take into account such other things as the potential for opening new markets for a product and the number and nature of complaints from importing countries.
How extensive should the operation of the EQCIS be?

This will largely be determined by the range of individual products and groups of products, that the EQCIS is required to cover and the resources and funds available to support its operation.

Countries establishing an EQCIS have found that during the initial stage it has been wise to build the organization around the quality control and inspection of a single product or group of similar products. For example, fresh meat, or fresh fruits and vegetables, or perhaps canned fruits and vegetables. To limit the size of the EQCIS and its operations at the outset, requires a smaller budget, permits the essential elements of an administrative structure to be established, tested and modified in preparation for expanded activities embracing additional products. It also enables a core of inspectors to be trained in the skills of controlling one product without the complexity of training to cover a range of different types of products. Also, only a smaller technical service is required.

An examination of the histories of existing EQCIS shows that most, if not all, began by controlling a single product or a single group of products. For instance, the Australian EQCIS-The Australian Quarantine and Inspection Service-was established in 1906 as The Australian Export Inspection Service. It began operations by controlling and inspecting only fresh fruits and vegetables. Later, when the EQCIS organization was in place, and experience gained both in the practices of control and inspection, other food products and groups of products were brought under control one by one. In the case of some groups of products, control and inspection began with one product in the group with the other products in that group being added as appropriate. This was the case with cereals. First wheat was brought under export control and subjected to inspection. Later, when administrative and technical procedures were in place for effective and efficient export control and inspection of wheat, other cereals including oats and barley were brought under export control. The export control and inspection of the fish group evolved in much the same way.

Some countries in establishing a centralised EQCIS have been faced with the situation of a number of separate and unrelated agencies already exercising some sort of export control over single products and groups of products. In most of those cases the new EQCIS has established itself around the control and inspection of a product that nobody else has responsibility for and left the existing arrangements for other products as they were. Then, as the EQCIS has matured and developed it has absorbed, as appropriate, those other export control and inspection responsibilities that were in place before its inception.

Generally, there appears much to support a policy of beginning in a small way and proceeding carefully when establishing an EQCIS. However, it is recognized that occasions may arise, such as a crisis that threatens the survival of an entire food export industry, when the only remedy is immediate control of the product or products in
question. In such circumstances it may be necessary to act with extreme haste to establish an EQCIS. Fortunately, such circumstances are uncommon.

**Which foods should be controlled by an EQCIS?**

The export control and inspection of food is costly. To control and inspect foods for export when there is no demonstrated need to do so is wasteful of resources and may even be counterproductive by way of discouraging exporters and inhibiting export trade.

However, the demand by many importing countries for certification of one sort or another for a wide range of food products has thrust the need for export control and inspection on exporting countries. They have no alternative other than to comply if they wish to export to those countries requiring certification. Consequently, official government export control of foods requiring certification by importing countries is practically unavoidable.

In the case of products for which certification is not mandatory - and there are quite a range of them including, canned foods (excluding low-acid canned foods), bakery products, confectionery foods and jams and jellies - the following questions should be asked before they are subjected to export control and inspection.

**Is the volume of annual exports sufficiently large and annual foreign exchange earnings from them of importance to the national economy?**

Like fashions, food products come and go. Some products enjoy a passing popularity with consumers that lasts only for a year or two. Sometimes farmers and primary producers produce and market commodities that for a short time are profitable but which, with a change in economic or market circumstances, do not remain an attractive source of income. In such cases valuable EQCIS resources may be expended for little return.

On the other hand, food exports that have a significant history of success and profitability should be carefully considered for export control and inspection. However, it will be more than likely that such products will be amongst those for which importing countries require certification. In any event, industry consultation is a necessary prerequisite to deciding to bring a product under export control. It may be that industry will see marketing advantages in having a product export controlled even though import certification is not required.

**Does the country have an international reputation for a product or products that deserves protection?**

Turkey is famous for its dried figs, fresh fruits and vegetables and hazel nuts; India, likewise, for its spices, cashew nuts, and seafood. New Zealand is renowned for
its meat, dairy products, and fresh fruit. Thailand is known for its rice, canned pineapple and other fruits and vegetables, while the United States is highly regarded for its meat, processed and fresh foods, grains, marine products. And so it is, with most food exporting countries having export products for which they are justifiably proud and for which they are internationally known. Those products are also major income earners and contribute substantially to national economies.

For a country to lose its trade in those products for which it is renowned could, at worst spell national disaster or, at least cause economic hardship and loss of national pride and prestige. Needless to say, most countries with a product recognized as a national asset protect that asset. Through export control and inspection they ensure that standards for that product (or those products) remain high and that nothing happens in the trading sense to tarnish the reputation of that or those products and threaten the associated national image as well as interrupt income.

The role of an EQCIS in ensuring that product reputation remains consistently high is self-evident. Without an EQCIS the task of maintaining that standard as well as the associated national image and reputation becomes difficult, if not impossible.

Do problems with the product on foreign markets threaten the country’s reputation as a reliable supplier of acceptable product?

Filth in canned fruit, pesticide residues in fresh fruits and vegetables and prohibited artificial colours in jams are but three of the multitude of problems that can damage the reputation of the exporting country in the eyes of the importing country. Single or isolated incidents of quality defects may only throw doubt on the reputation for reliability of the exporting country, but repeated incidents will practically destroy that reputation along with a country’s credibility. The ultimate consequence is the loss of markets and the destruction of a trade.

An efficient and effective EQCIS can deal with such problems in a way that minimizes damage to the national reputation and credibility, and establishes good will by giving undertakings to the importing country that positive steps are being taken to prevent recurrences of the problem.

Are the activities of unscrupulous and dishonest exporters threatening the country’s international trade in the product?

The integrity of the majority of food exporters, especially the reputable ones, is beyond question and of a high order. The dishonest minority can, however, spoil the situation of the honest majority to the extent that no distinction is made between the two by importers and the food control agencies of importing countries. Unless stopped and recurrences prevented, dishonest practices can give a predominantly honest exporting country a bad reputation and damage its trading performance.
The only way to counter, eliminate and prevent damaging dishonest export practices is to establish a statutory EQCIS with sufficient authority to enforce compliance and effectively penalize offenders.

**Are prices being received for products significantly less than those being received by competing countries for similar products?**

An examination of food commodity prices paid on international markets quickly discloses that similar products from different countries of origin bring different prices. In some cases this is explained by differences in intrinsic qualities. That is, for example, higher prices for larger, more attractive or better textured product of superior keeping quality. In other cases, lower prices are paid for products of similar intrinsic quality but from different countries. Often the explanation for this is that importers know that product from some countries is better handled, is quality controlled, subject to export control and inspection and therefore more likely to meet consumer expectations. Similar products of the same initial intrinsic quality but not quality controlled in the country of origin and not subject to export control and inspection are believed to be less likely to meet consumer expectations. In other words, those products are 'risky' and the importer takes out 'insurance' against loss by offering the exporter a lower price. Such situations are not uncommon, particularly in the international trade in shrimp or prawns.

There are situations in which products of high intrinsic quality are purchased at discounted prices from countries with no export quality control and inspection arrangements by importers in countries with an EQCIS, reconditioned by them and re-exported at premium prices.

It is a commercial fact that in the international food trade premiums are paid by importers for products from countries which take the trouble to ensure the reliability and uniformity of quality of those products. It follows that the only way for a country to receive a reputation for reliable quality and receive the higher prices as a result, is to develop a quality conscious industry and apply an objective and independent system of export quality control and inspection at national level.

**Is there an export potential for a product with the prospect of increased foreign exchange earnings?**

It can be profitable for food exporting countries to examine the range of products they produce and determine whether there are any that are not being exported but might have export potential and re-examine those already being exported and for which there might be potential for increased export. An EQCIS can assist in promoting new export products and increasing the level of export, as well as prices, for existing exports. It does this by setting grade standards in collaboration with industry, inspecting and certifying to those standards, ensuring uniformity of products within grades, checking
the suitability of packaging and ensuring its compliance with any statutory requirements, and taking steps to ensure that the product will be stored and transported satisfactorily.

In recent years, New Zealand created a highly profitable export trade in the Chinese gooseberry (*Astinidia chinensis*), an ancient fruit growing in many countries. By renaming it Kiwi fruit, and the New Zealand EQCIS, in cooperation with producers of the fruit, setting export standards for it and subjecting it to export control and inspection. The exercise was so successful that many other countries have followed the example.

**Should an Export Quality Control and Inspection System charge industry for its services?**

There was a time when, in a majority of countries, the services of EQCIS were provided free of charge to export food industries. The philosophy adopted by most governments at that time was that EQCISs contributed to the national image and income of the country and their operation should therefore be a charge against the public purse.

Since that time, and with a tightening of national economies and significant increases in the cost of providing services, a switch has taken place to a philosophy of user, or beneficiary, pays. This has resulted in most EQCISs charging industry for their services. Systems of charging vary and have ranged from applying a tax or levy on all product exported, to the currently widely adopted fee-for-service. Those countries that have adopted fee-for-service, involving an hourly charge for the services provided by inspectors and other quality control staff of the EQCIS, first establish the desired level of cost recovery. This may range from 100% of the cost of operating the EQCIS to something less. In Australia, for example, cost recovery has gone from nil (a free service) to the current 100%. It should be said that during the existence of the Australian EQCIS charging has not gone directly from nil to an increasing percentage of cost. Instead, charges have fluctuated depending on the economic circumstances of an industry. At times of market downturns and relatively unprofitable periods for the export food industry charges have been dropped and not reinstated until the fortunes of the industry have recovered. It should be noted that never at any time during economic difficulties and high operational costs has terminating the EQCIS been seen as a serious option.

Charging for the services of an EQCIS can bring advantages. Firstly, the EQCIS comes under both government and industry pressure to contain its cost of operation. It usually does this by streamlining its operations and procedures taking care not to reduce effectiveness. Secondly, industry can save by reducing the level of service required from the EQCIS, and therefore is stimulated to improve its internal quality control thereby reducing the need for EQCIS services.
In any consideration of charging for the services of an EQCIS it should not be forgotten that to charge an industry more than it can afford will reduce export effort and may result in the demise of the export industry.

ESTABLISHING FORMAL AUTHORITY FOR THE OPERATION OF AN EXPORT QUALITY CONTROL AND INSPECTION SYSTEM

As indicated in Chapter II, an essential element of an effective EQCIS is a sound legislative base comprising a law and related regulations. This enables the government of a country to regulate the export of foods so that it complies with the provisions of the law and regulations. That is, the food is labelled and marked in accordance with the prescribed requirements and has been prepared, handled, processed, packed, stored and transported under hygienic and satisfactory conditions, and that it also meets the mandatory requirements of importing countries.

That law should also provide for an organization (an EQCIS) to give effect to and enforce its statutory requirements. Such an organization must include capable, well-trained and equipped personnel with access to adequately equipped laboratories.

To oversee, and where necessary coordinate the overall activities of an EQCIS, which may have elements in a number of government departments and instrumentalities, it is desirable to establish formally an advisory body - an Advisory Board or an Advisory Council - with the principal functions of:

Advising the government and relevant minister on policy related to product inspection provided by the EQCIS;

Assist with establishing priorities with respect to proposed EQCIS activities;

Examine and advise on policy proposals put forward by industry and other interested parties; and

Attend to such matters as the government or minister may refer to it.

The composition of this body should embrace food exporting industries, consumer organizations, unions whose workers are employed in export food industries, and the head and senior officers of the EQCIS. It can not be over-stressed that the successful operation of an EQCIS is heavily dependent on industry support and the fullest cooperation of individual industry groups whose export products are subject to control by the EQCIS. For an EQCIS to attempt to work in isolation is courting disaster and runs counter to the important principle that an EQCIS should assist industry, not hinder it.
PLANNING THE OPERATIONS OF AN EXPORT QUALITY CONTROL AND INSPECTION ORGANIZATION

Following the selection of the food or foods to come under export control and inspection (see, 'Which foods should be controlled by an EQCIS?', above) the next steps would include:

working out the procedural details for the export quality control of that food (foods) in consultation with the food industry and other relevant interests. Amongst other things, this would involve:

setting a commencement date for the operation of the EQCIS,
establishing minimum requirements to be met by food premises seeking registration as export establishments,
establishing minimum export standards including those for product composition, quality criteria, residues, additives, contaminants, etc.,
determining levels of sampling and analysis,
deciding points of inspection, formulating packaging and labelling requirements,
designing ways of providing the exporter with evidence of compliance of his product with requirements of the EQCIS by certificate, sealing, marking, stamping or a combination of two or more of these, and
estimating costs of export inspection and analysis and examining ways of recovering those costs as a charge against exporters.
publishing (desirably in the official government gazette) for public scrutiny and comment draft proposals for foods to be controlled by the EQCIS,
finalization of those proposals in the light of comments received and consultation with the food industry and other relevant groups, with subsequent promulgation of the final notification,
determination of the number of inspection staff required to implement the export control and inspection programme and where inspection centres are to be located, and
determination of laboratory capacity required for analytical purposes together with the location of the laboratories and the equipment and quantities of chemicals needed. If at all possible, an annual analytical programme should be
designed on the basis of number of analyses likely to be required and the
distribution of submission of samples over the year. This enables optimum use
of resources.

Existing laboratory facilities should be taken into account in programming
analytical requirements for the operation of the EQCIS. This is essential in those
countries with limited resources and few technically trained personnel.

Thought should also be given to establishing a training programme and training
facilities for all sections of staff as well as personnel from industry. Because of its
importance the subject of training is treated in some detail later in the Manual.

In developing countries in particular, starting an EQCIS with a small organization
staffed by competent personnel and an assured budget has proved to be the most
successful approach. As indicated earlier, the activities of the EQCIS can be enlarged
in stages as additional demands are made upon it as a result of expanding activity in
the export food trade.
CHAPTER IV
STATUTORY PROVISIONS FOR THE EXPORT QUALITY CONTROL AND INSPECTION OF FOODS

THE LEGAL BASE - A LAW AND REGULATIONS

To be effective, an EQCIS must be credible in the eyes of food control agencies of importing countries. A country that has an EQCIS supported by a well structured Law(s) and Regulations formulated and adopted by its government demonstrates to the authorities of importing countries that that government means 'business' - that is, it genuinely desires to ensure the safety and quality of the food it exports.

The nature of laws providing a legal base for the operation of EQCISs for foods varies from country to country. The Indian Laws, quoted in Chapter II, not only apply to foods but also to a wide range of commodities other than foods in much the same way as the Export Inspection Law of Japan 1957. Other countries too, including China, the Republic of Korea, and the Philippines have export control and inspection legislation that is not restricted to foods but can be, and is, applied to non-food items. However, other countries have laws that apply only to the export control and inspection of foods. Both New Zealand and Israel have specific Acts for individual commodities or groups of commodities, and Kenya has an export ordinance that empowers the government to control the quality of all agricultural and horticultural products exported. The Australian Export Control Act 1982, although enacted deliberately to provide for the export control of food products prescribed by Regulations and Orders proclaimed under that Act., could embrace non-food products if so desired.

Regardless of the differences in legal format and coverage, all of these laws have one thing in common - to prohibit the export of prescribed goods unless they comply with the requirements of the law and regulations and are certified as having done so.

In many ways the export food laws and regulations of a country reflect that country's legislative philosophy and practices, its social and economic conditions, the role of the export trade in the country's economy and the stage of development of the export food trade. In all cases where countries have an export control law, it can be safely said that that law is serving its intended purpose well.

To provide a government with sufficient authority (to exercise through its EQCIS) to control food exports it is desirable that the enabling Law should include power to:

prohibit the export of food to all destinations;

register all premises in which food is prepared, packaged and stored for export;
license exporters in those circumstances where it is appropriate to do so to maintain the level of control desired;

appoint inspectors and other authorized officers;

enable inspectors to enter, inspect and search all registered premises and seize products;

require foods for export to comply with general and product Regulations prescribed under the Law, be labelled in accordance with prescribed requirements and be prepared and packaged under prescribed conditions;

take samples for analysis;

certify and issue certificates as to fitness for export;

penalize those who contravene the Law and Regulations in such a way that the penalties serve as a deterrent; and

charge inspection fees.

Depending on a country’s established legal and administrative system, it may also be necessary for a Law to include power to:

establish an EQCIS;

create an Advisory Board or Council;

design and apply ‘EXPORT APPROVED’ marks to product certified as fit for export; and

meet the mandatory requirements of importing countries.

For the purpose of illustrating the foregoing, a Model Export Control Law is included in the Manual as Annex 1.

**IMPLEMENTATION AND ADMINISTRATION OF THE LAW**

To enable effective implementation of the Law the detail of its requirements need to be stated precisely and succinctly. This is generally done by way of detailed regulations. Sometimes these are referred to as ordinances, orders, proclamations or some such title depending on the nomenclature used in the legal system. They make it quite clear to both the relevant food industries and the agency administering the EQCIS what it is exporters must do to comply with, as well as the procedures to be
adopted in ensuring that the requirements of the Law are met. It is customary for the Law itself to include provision for the making of regulations. The types of regulations and the nature of each type is discussed in Chapter V.

The administration of the Law may be vested in one single government organization or one or more government agencies. Experience has demonstrated that the more agencies there are with responsibilities for administering the Law the more difficult it is to coordinate their activities, achieve a uniform implementation of the requirements of the Law and develop amongst those agencies the corporate sense needed to achieve optimum efficiency and effectiveness. It is relevant that for the sake of credibility, food control agencies of importing countries much prefer to receive certificates issued by one export control agency as distinct from a number of different agencies, as does happen in the case of some exporting countries. It is now generally accepted that the best and most economical way to implement and administer an export control law and EQCIS is through one agency. It is essential, however, that that agency work closely with other government agencies and shares with them details of its objectives and procedures.

That is to say, it is essential for the agency implementing the Law and administering the EQCIS to work closely with other specialized government agencies having a close association with the production of fresh and raw food materials. Ministries of agriculture and their departments have a close association with food production by way of advising farmers about the varieties to produce and the cultural techniques to use. If importing countries prohibit the use of certain pesticides, then the agency administering the EQCIS notifies the agriculture agency with a request that farmers and other primary producers be informed and directed not to use those pesticides on foods for export. Similarly, certain varieties or types of product might be sought more on some markets than others. The agriculture ministry is in the best position to advise producers about this and should be used for doing so by the agency having responsibility for the EQCIS.

The coordinated cooperation of those agencies having relevance for the export of foods can contribute greatly to developing an export consciousness amongst food producers and exporters. Agencies responsible for the administration of EQCISs are essentially regulatory organizations with the important role of enforcing the compliance of prescribed products with the statutory requirements of the Law and Regulations. It is not always easy or appropriate for a regulatory organization to simultaneously promote the virtues of its activities or, without assistance, encourage the type of export consciousness or awareness mentioned above. More often than not the task is easier for an agency promoting trade or one extending incentives to encourage exporters to lift their performance or attract more producers and processors into international marketing.
THE ROLE OF INDUSTRY

The greater industry cooperation is in establishing and implementing an export control and inspection Law and Regulations, the easier it is for the responsible agency to effectively and efficiently perform its function. Conversely, a Law and Regulations that do not have the support of industry are, without exception, difficult to enforce and will meet considerable industry resistance. It is therefore essential that industry be involved at all stages of the formulation of the Law and Regulations and that it have a voice in determining the procedures for its implementation and the enforcement of compliance. Experience suggests that the best way of involving industry is through an industry consultative committee during the formative period for the Law and Regulations, an Advisory Board or Council, as indicated earlier, for assisting with the directing of the EQCIS when it is established and a series of industry technical advisory and consultative committees to assist with technical aspects of the export quality control and inspection of specific products or group of products. For example, a Fish Industry Technical Advisory and Consultative Committee, a Fresh Fruits and Vegetables Technical Advisory and Consultative Committee etc.

ESTABLISHING AN ADVISORY BOARD OR COUNCIL

Some countries provide for the establishment of an Advisory Board or Council in their export control Law while others establish such a body as part of their administrative arrangements for conducting the EQCIS. In either case, the responsibilities of the Board or Council are similar with the difference being, that in the first case the Board or Council is statutory whereas in the second, it is voluntary. Depending on the legal and administrative procedures within a country, Board or Council members may receive payment for their services, especially if theirs is a statutory appointment under the Law, and their appointment may be subject to ministerial or government approval.

A less formally constituted Advisory Board or Council may be established by the agency responsible for the EQCIS. While such a body has no statutory base it does not follow that its responsibilities are any less and, in fact, the contrary is mostly the case.

The composition and functions of an Advisory Board or Council are referred to in Chapter III.
CHAPTER V

FOOD EXPORT QUALITY CONTROL AND INSPECTION REGULATIONS

THE NEED FOR AND IMPORTANCE OF REGULATIONS

Together with the export control Law, regulations make up the legal or statutory package empowering the operation of the EQCIS. The Law provides the parameters or boundary within which the EQCIS may operate and gives direction to how the authority vested in it by the Law may be applied. The regulations, or similar rules depending on the country's legal system, provide detailed directions for its operation within those parameters or bounds. Put in another way, the Law may prohibit the export of prescribed foods unless they comply with specified requirements and the regulations state what those requirements are and the technical and administrative measures to be taken to ensure that they are met. It is customary for Laws to include a provision for Regulations to be made, as illustrated by the Model Law at Annex 1.

Regulations are essentially a legal device to avoid the need for filling Laws with large amounts of necessary but voluminous detail. There are on record instances of Laws that include the details that convention now dictates be included in Regulations. Those Laws were so expansive that they were difficult to read, difficult to interpret and the essential elements of the Laws were buried in detail; all of which made their implementation and administration extremely difficult.

Quite often legislators find it necessary to quickly modify existing statutory requirements for foods. In most, if not all countries, the amendment of a Law is a time consuming and complicated exercise. On the other hand, the amendment of a Regulation can mostly be achieved relatively quickly and much more expeditiously than a Law. Because of rapid developments in food science and the technology associated with food preparation and processing it has become commonplace for those administering EQCISs to need to quickly modify export requirements. As a result, most countries having an Export Control Law have also adopted Regulations to give it effect.

As stated in an earlier chapter, it is essential that Regulations be written in clear and concise language so that they can be clearly understood by not only those administering the EQCIS but also by exporters. Successful compliance and the efficient enforcement of Regulations depend heavily on those Regulation being unambiguous and easily understood. It is also important for both exporters and administrators that the Regulations for a particular food product or group of products be published in a single document. The scattering of Regulations for a product or group of related products over a number of documents leads to confusion, misunderstandings and sometimes legal wrangling.
Not only must exporters and the export control agency be familiar with and understand the Law and Regulations upon which their own national EQCIS is based, they must also be familiar with and understand the import Laws and Regulations of the foreign countries to which they export. This places heavy demands on both, especially as failure to be fully and accurately informed in this regard may lead to costly detentions and rejections of product.

The remainder of this Chapter discusses the types of regulations of importance to an EQCIS and attempts to place them in their proper context.

**TYPES OF REGULATIONS**

Regulations associated with export food control and inspection are mostly of two types, namely:

- General Regulations, and

- Product Regulations.

Diagrammatically, the relationship between the Export Control and Inspection Law and the two types of regulations is as follows:

**EXPORT CONTROL AND INSPECTION LAW**

| Gives the Government comprehensive control by prohibiting the export of prescribed foods that do not meet mandatory export requirements for safety, quality, packaging and labelling, and by establishing penalties for non-compliance. It also establishes the inspection base of the EQCIS by defining the responsibilities of inspectors and other authorized persons. |

**GENERAL REGULATIONS**

| Draw their authority from the Export Control and Inspection Law and provide the general or common requirements to be met by all prescribed foods for export and subject to export inspection. They also provide details of procedures to be adopted by exporters seeking approval from the agency administering the EQCIS to export prescribed goods. |

**PRODUCT REGULATIONS**

| These also draw their authority from the Export Control and Inspection Law. Each prescribed product or group of products has its own regulations. For example, Export (Grains) Regulations, Export (Meat) Regulations, Export (Dairy Products) |
Regulations, Export (Fresh Fruits and Vegetables) Regulations, and Export (Fish) Regulations. These regulations relate to the General Regulations but principally contain detailed technical requirements and standards for specific products and their handling, preparation, processing, packaging, labelling, storage and transport. They may also provide for the level of use of additives and maximum residue levels for contaminants of all sorts. Alternatively, these may be provided for in separate regulations or standards.

**GENERAL REGULATIONS**

As pointed out above, it is desirable to have all those regulations relating to one product, or group of products, in the one document. Similarly, it is also desirable to have all General Regulations included together in another document. However, in doing so, it facilitates finding and understanding the Regulations to have related requirements grouped together in the same place or 'Part' under an appropriate heading. Planning and arranging the General Regulations in this way has a single but most important objective - to simplify their use by both those who enforce the Law and those who must comply with it. The following Parts and headings are intended as a guide to the provisions that might appropriately be included in General Regulations and they reflect the composition of General Regulations in place in countries having established EQCISs.

**Preliminary**

The intention of this Part is simply to designate the date on which the General Regulations will come into effect, the range of their application ('These Regulations apply to all goods declared by these Regulations to be Prescribed Goods'), and to provide the meanings or interpretations to be applied to terms and expressions used in the Regulations.

**Prescribed Goods**

It is customary for the Law to designate 'Prescribed Goods' as goods that are declared by the Regulations to be prescribed goods. The intention of this Part of the Regulations is to declare the goods or groups of goods that are to be prescribed goods and, as such, become subject to the Law and its Regulations. Conversely, goods not declared are not subject to the Regulations and this is something that exporters should know.

Initially, the General Regulations may only prescribe one product or group of products. As the need for export control and inspection of additional products arises, those products can be included by an amendment to the Regulations.

This Part may also include an 'Exception' provision which enables the exclusion of prescribed goods from the requirements of the Law and Regulations if, for
example, those goods are being exported for non-commercial purposes such as ship’s supplies, commercial samples or supplies for small isolated communities.

**Prohibition of the Export of Prescribed Goods**

While it is customary for the Law to, 'Prohibit the export of prescribed goods unless specified conditions or restrictions are complied with', this Part of the General Regulations states in detail what those conditions or restrictions are. If those conditions or restrictions are not met then the export of the prescribed goods is prohibited. Generally, the conditions or restrictions include the following:

The goods shall have been prepared in, and inspected at a registered establishment, except in exceptional circumstances when they may be permitted to be inspected in unregistered establishments.

The goods shall have been prepared, inspected or transported in accordance with Product Regulations that apply to the goods.

The conditions or restrictions in the Product Regulations applying to the goods shall have been complied with.

The goods shall not have been prepared in an establishment during a period when the registration has been withdrawn.

Where an official mark has been specified in these Regulations for use on the goods or their coverings it shall be applied as required in the Product Regulations applying to the goods.

Where the trade description (labelling) containing the particulars in these Regulations and the Product Regulations that apply to those goods is required, it shall be applied to those goods.

The goods shall not have been moved from a registered establishment unless authority exists under the Regulations for them to be moved.

The goods shall not have been loaded into a container-system-unit, aircraft, ship, railway or road vehicle.

A 'Notice of Intention' to export the goods shall have been given to an authorized officer (inspector) and certified by an authorized officer as required by these Regulations.

The exporter shall hold an 'Export Permit' that has been issued for the goods as required by these Regulations.
Exemptions

The intention of this Part is to empower the Head of the agency administering the EQCIS to exempt prescribed goods from the provisions of the Law and Regulations in certain circumstances. An example would be the case of the export of prescribed food products for experimental purposes. Developments in food technology are resulting in new products, new packages and packaging techniques as well as new methods of product handling, processing, storage and transport. To establish the suitability of these developments for export purposes it is often necessary for exporters to ship experimental lots that do not entirely comply with the existing requirements of the Regulations. Sometimes in the development of new markets and the acquisition of new clients exporters are required to ship commercial samples for examination and consideration. The exemption provisions of the Regulations make it possible for exporters to proceed without going through the normal export control and inspection procedures subject to the quantities of goods involved meeting the limitations specified in the General Regulations, (sometimes 50 litres in the case of a liquid and 60 kilogrammes in other cases).

Registered Establishments

This Part relates to that provision of the Law prohibiting the export of prescribed products unless they comply with the Regulations and the provisions of these General Regulations requiring goods for export to be prepared in and inspected at a registered establishment.

An essential part of effective export control and inspection is the control of export establishments. A well managed, well equipped, clean and efficiently run establishment is most likely to export safe product of acceptable quality whereas a poorly managed, poorly equipped, unclean and inefficiently run establishment is most unlikely to produce goods that are safe and acceptable for export.

The intention of this Part is to establish the conditions with which an establishment must comply to qualify for registration and to indicate the procedure to be followed by the exporter in applying for the registration of his establishment. It requires the exporter to apply in writing, submit plans and specifications of both the establishment and equipment used, or to be used, in product handling, preparation and processing as well as details of the types of products to be prepared in the establishment. If on inspection, the establishment meets the requirements of the product Regulations for the products to be prepared in it, possesses adequate first aid and safety services, and if the operation of the establishment is controlled by a fit and proper person (as defined in the Regulations) and the prescribed registration fee is paid, then the establishment shall be registered in the name of the occupier(s).
Registration shall be for a prescribed period (frequently a calendar year) and the occupier shall be issued with a Registration Certificate (which must be prominently displayed in the establishment) and his establishment given a registration number.

This Part also provides for the registration to be cancelled, renewed or transferred and describes the procedure to be followed if the establishment is to be structurally altered, the operations for which it is registered varied or the operations suspended.

Packaging

Packaging is an important aspect of presenting prescribed goods in an acceptable condition on export markets. Sound packaging guarantees that prescribed goods approved for export will arrive at their destinations unchanged if transport conditions have been satisfactory. Unsound packaging may not only have a detrimental effect on contents but it is often unsightly and unattractive to those receiving the goods.

This Part requires that packaging material used for prescribed goods meets the requirements of the Product Regulations, is new or, if used, has been cleaned and approved by an authorized officer (inspector), does not place the acceptability of the goods at risk, is suitable for the product and sufficiently strong to withstand handling and transport.

Trade Description

Many countries, including the most important food importing nations, have mandatory trade description requirements that they also apply to imports. The requirements of this Part should as closely as possible reflect those requirements by making it mandatory to include in any trade description a true description of the goods, where the goods contain more than one ingredient—a list of ingredients in descending order of proportion or as required by the Product Regulations, the net contents, the date of packaging in clear or in code as directed in the Product Regulations, the country of origin, the number of the registered establishment in which the final processing occurred, the name and address of the manufacturer, producer, exporter or consignee, and any other information required by the Product Regulations.

This Part will also require that a trade description containing the above information shall be approved by an authorized officer. If the exporter wishes to include additional information to that required by the Product Regulations, approval should be sought in writing from the Head of the agency administering
the EQCIS. Copies of all approved trade descriptions should be held by the exporter and made available to an authorized officer on request.

The Part should also require that the trade description is legible and in a colour that contrasts with any background colour and not be obscured in any way and that where more than one covering is used in packaging each cover will display the details contained in the above paragraph.

It should also be required by this Part that a person shall not alter or interfere with the trade description applied to prescribed goods unless an authorized officer approves such an alteration in writing and the change(s) complies with Product Regulations. Where the trade description is in a language other than that of the country of origin the exporter should provide the authorized officer with an accurate and authoritative translation.

Notice of Intention to Export Prescribed Goods

An essential element of an Export Control and Inspection Law is a requirement that exporters inform the Head of the agency administering the EQCIS, or his delegate, of their intention to export prescribed goods and to make each failure to do so a punishable offence.

This Part of the General Regulations is quite straightforward. It requires the exporter to inform an authorized officer of his intention to export prescribed goods at least three working days before shipment is planned. The period may be less in exceptional circumstances. This requires the exporter to complete a statutory 'Notice of Intention' to export form designed to elicit from the exporter all the information required by the Regulations. On its reverse side the 'Notice of Intention' displays instructions to assist the exporter in completing the form. The form is so designed that once inspection of the goods to which the form relates has been completed, and the goods approved for export and it has been signed to that effect by the inspector, it becomes an 'Export Permit' for clearing the goods through Customs at point of export.

The information given on the 'Notice of Intention' should include the name and address of the exporter, the name and address of the person or organization to receive the goods, the intended port of loading of the goods, the intended ship and voyage number, airline flight number or identification details of vehicle or rail transport, the intended port of discharge of the goods, the foreign country that is the final destination of the goods, the place where the goods can be inspected, the date on which the goods can be inspected, the registered number of the establishment, the shipping or other marks identifying the goods, where available, any identification that appears on a shipping-container-unit indicating the goods it will contain, the number and kind of packages, a true description of the goods, any other information required by the head of the export food control
agency and a declaration signed by the exporter that the Regulations (both General and Product) applying to the goods have been complied with and that the information contained in the 'Notice of Intention' is true and correct.

The Export Permit

The principal purpose of this Part is to enable the exporter to be issued with an Export Permit. This is simply a permit which certifies that his prescribed goods have been approved officially for export and can therefore be cleared by Custom officials at the point of export.

This Part also provides authority for an authorized officer to reinspect goods after the Export Permit has been issued, withdraw them from export if their condition has changed, cancel the Export Permit and demand its return within 24 hours.

Prescribed Goods for Export

The intention of this Part is to give an authorized officer authority to stop the export of goods unsuitable for export and, in the case of goods unfit for human consumption, to empower him to condemn those goods.

This Part also requires the occupier of the establishment in which the condemned goods were prepared to mark them as condemned and have them treated or destroyed in accordance with the Product Regulations that apply to them.

Abandonment of Intention to Export

This Part of the General Regulations is intended to ensure that goods approved for export and marked accordingly are, in fact, exported after the 'Notice of Intention' has been certified and the 'Export Permit' issued.

Under the Part, an exporter who abandons his intention to export prescribed goods for which export approval has been given is required to notify an authorized officer of his changed intentions and, at the direction of the authorized officer, remove or deface all official export marks on the prescribed goods and hold them in the registered establishment until an authorized officer has observed that the official export marks have been removed or defaced and that any other Product Regulations relating to the goods have been observed.

Official Marks and Official Marking Devices

In any EQCIS the use of marks and seals is of utmost importance. For example, an 'Approved for Export' mark on a container has considerable commercial value. To importers and food import control agency officials alike, the mark means that the products on which it appears have been inspected and approved
by the government of the country of origin. Importers are prepared to pay more for the guarantee of quality given by the mark and import officials are inclined to be less stringent in their examination of products bearing official export inspection marks.

For those reasons unscrupulous exporters may illegally acquire official marking devices (usually stamps) for use on prescribed goods that have not been inspected. In recent times there have been cases in a number of countries of exporters using either stolen or counterfeit stamps.

Seals are also of the utmost importance in any EQCIS for the purpose of product security. Prescribed goods in cartons need to be sealed in those cartons once export inspection has taken place. This ensures that substitution of product (that is, the replacing of approved product with unapproved product, usually of substandard quality) is at least difficult. A broken or repaired seal suggests tampering has taken place. In the case of warehouses, stores and container-system-units, it is necessary to ensure that product approved for export is safely secured in those places without the risk of substitution.

The intention of this Part is to declare, and show by illustration, those marks and seals to be adopted for use in the implementation of the EQCIS. Some countries adopt a number of official marks and seals for use with different products and in certain circumstances. For example, one carton seal to be applied after export inspection and approval and another for resealing goods following their re-examination and re-approval. Yet another may be used for securing product that has been rejected. Seals used for sealing cartons are seldom, if ever, suitable for sealing the doors of storage and container-system-units. They require strong metal type seals capable of resisting mechanical efforts to break them.

Besides EQCIS agency officials requiring a mark to identify those products they have inspected and approved for export, exporters generally, desire to advertise the fact that their products have been approved for export by government officials. They believe this gives them a competitive edge. Consequently, many food exporting countries stamp approved goods and their containers with an, 'Approved for Export ' mark. A smaller version of the mark is also often used for stamping official export documents and certificates.

**Sampling and Analysis**

In reality, this Part is an extension of that provision in the Law which authorizes an authorized officer to inspect and examine any premises, vehicle, ship, aircraft or thing and take samples of anything.

The intention of this Part is to provide instructions as to how samples (usually of goods) are to be handled and to direct how those samples are to be analyzed.
and by whom. It also provides for the issuing of a 'Certificate of Analysis' and establishes the status of that certificate in court proceedings resulting from a dispute.

Experience has demonstrated that unless a fee is charged for providing industry with copies of official certificates of analysis the demand for them becomes excessive.

**Addition of Other Substances to Prescribed Goods**

The intention of this Part is to provide for the use of newly developed substances in prescribed goods if their use is approved by the Head of the agency administering the EQCIS.

**Directions of an Authorized Officer**

The intention of this Part is to make it mandatory for the occupier of a registered establishment to comply with the directions given by an authorized officer in the performance of his duties.

**Fees for the Services of an Authorized Officer**

The intention of this Part is to provide for the charging of export inspection fees and related services if charging is proposed.

**Delegation of Powers**

The intention of this Part is to empower the Head of the agency administering the EQCIS to delegate his powers to other authorized officers, except his power to delegate.

**Reconsideration of Decisions**

The intention of this Part is to provide an official channel through which exporters and occupiers of registered establishments may appeal and seek a reconsideration of decisions made by authorized officers that are not to their advantage.

To avoid the application for reconsideration being overlooked, the Head of the agency administering the EQCIS is, in the interest of the exporter or occupier, usually required by the Regulations to respond within a specified time, say 45 days.
Sometimes General Regulations contain provisions for the establishment of an Advisory Board or Council that relate to its composition, its Terms of Reference, the method of appointing members and their term of office, the filling of casual vacancies, payment of members (whether a salary, honorarium or sitting fees), level of travelling expenses, frequency of meetings and other administrative matters requiring regulation. They may also contain provisions for such things as Licensing exporters when such a control is necessary and the making available of an authorized officer to an exporter to assist him with operational problems.

PRODUCT REGULATIONS

Whereas the General Regulations provide the general or common requirements to be met by all prescribed foods for export, Product Regulations contain detailed technical requirements and standards with which specific goods or products must comply to qualify for export. Like General Regulations, Product Regulations for a single product, or a group of similar products, are generally compiled together in a single document with related requirements grouped together in the same Part under an appropriate heading.

The following Parts and headings are intended as a guide to the provisions that might appropriately be included in Export Regulations for a single product or group of similar products. They reflect provisions that are found in existing Product Regulations of some food exporting countries.

Preliminary

The intention of this Part is simply to designate the date on which the Product Regulations will come into effect, their relation to the General Regulations, the goods (product or products) to which they apply and to provide the meanings or interpretations to be applied to terms and expressions used in the Regulations.

The Export of the Product is Prohibited Unless the Following Conditions are Complied With

The intention of this Part is to make it clear that the goods will not be approved for export unless the conditions or restrictions specified in these Regulations and the General Regulations are complied with, and the goods are fit for human consumption. The Part also provides for exemptions for goods from the Regulations in accordance with the exemption provision of the General Regulations.
Registered Establishments

This Part requires that those goods for export shall be prepared in a registered establishment and that to become registered an establishment must meet the requirements of the General Regulations as well as the following requirements:

It must be cited so there is no threat to its hygienic operation.

Its surrounds and construction should be such that the entry of pests and environmental contaminants is prevented or minimized, it can be operated in an hygienic manner, and it can be maintained in a clean condition. Drainage, lighting, and ventilation must be adequate and hand-wash basins provided in sufficient numbers.

Equipment and utensils must be designed to prevent hygienic hazards and to permit thorough cleaning.

Fittings including stairways, platforms and stands, racks and shelving must be of impervious material and constructed in a manner that does not cause potential contamination of food through particles falling into food or onto food processing equipment.

Storerooms must be dust and pest proof.

Services in the establishment including the steam supply, compressed air and the water supply (its quality, reticulation, treatment and storage) must be adequate.

The General Equipment and Facilities in the establishment, including protective clothing racks, provisions for washing movable equipment and utensils, hand-washing facilities and hose points, must be adequate and operationally sound.

Processing equipment should comply with the requirements of the relevant Codex Alimentarius Code of Hygienic Practice and/or Inspection.

Inspection Facilities and Accommodation to be Provided for Authorized Officers should be adequate and conform with the requirements as stated.

Amenities for Employees should be adequate and conform with the requirements as stated.

Loading Docks and Vehicle Work Areas must be located in a place that is convenient to storage facilities and enclosed or provided with an awning
to protect the prescribed goods during loading or unloading and capable of being properly cleaned.

**Prescribed Goods Stores** must be of sound construction and designed and maintained to minimize the entry of pests.

**Container Depots and Terminals** must be adequately sealed and drained.

**Operations in a Registered Establishment**

This Part of the Product Regulations lays down in great detail the requirements that must be met in preparing for export the goods to which the Regulations apply. For convenience and easy reference such requirements are often included in Schedules attached to the Regulations and referred to as appropriate in the Regulations. The arrangement of this Part in Export Regulations for Canned Fruits and Vegetables for example could be arranged under the following headings:

**Canning Procedures**
- Sampling and inspection
- Cleaning of containers
- Head space
- Exhausting of containers and filling
- Glass closures
- Sealing and closing equipment
- Visual inspection of immediate container closures
- Can seam evaluation
- Inspection for hermetic sealing
- Records to be maintained
- Procedure following discovery of a sealing fault

**Requirements for Thermal Processing**

These may draw on other documents by reference. For example, 'The procedures by which low-acid prescribed goods are packed in hermetically sealed rigid flexible or semi-rigid containers shall comply with the requirements of this Part and the current edition of the Codex Alimentarius Code of Hygienic Practice For Low-Acid Canned Foods CAC/RCP 23-79'.

**Cleanliness and Condition of Establishments**

General requirements, whereby the occupier of an establishment must at all times during processing maintain the establishment, its fittings and equipment in good repair and in a clean and tidy condition in accordance with the standards specified in these Regulations.
Chlorine in water.

Non-potable water.

Handling and Processing
General requirements whereby the occupier of a registered establishment must, at the direction of the Head of the agency administering the EQCIS, provide him with details of raw materials, processing methods and ingredients or additives for all products processed in the establishment.

Operating practices
Raw materials
Waste disposal
Storage
Glass containers

Pest Control
A requirement that the occupier of a registered establishment must operate an ongoing pest control programme designed to eliminate all pests from the establishment premises.

Separation of functions
A requirement that any process from which there is a risk of contamination to the final goods shall take place in an area physically separated from areas in which goods are processed, packed or stored.

Personnel Hygiene
Personal hygiene
Clothing
Hygienic practices

Export Standards for Prescribed Goods
This Part requires the goods to comply with the product standards prescribed by the Regulations and to contain only those ingredients permitted by the Regulations. The requirements of this Part may be arranged under the following subheadings:
Condition of Product Before Processing or Preparation

Preparation and Processing

Immediate Containers

Container Filling

Product Attributes

Release of Prescribed Goods From a Registered Establishment

The foregoing provisions relate to more general provisions about similar requirements appearing elsewhere in the same Product Regulations. In particular, however, they apply specifically to the individual products included in the goods covered by the Regulations.

Product Standards

The Standards for individual products to be complied with under the Regulations are specified in detail. For example, the standard for an individual product will include composition specifications and microbiological specifications, where the latter are appropriate. For convenience and ease of reference the composition specifications for products may be arranged under headings as follows:

Name of the Product

Scope, or the variety of ways in which the product may be presented under the same name.

Description of the Product

Essential Composition and Quality Factors

Food Additives

Contaminants

Hygiene

Weights and Measures

Labelling
Methods of Analysis and Sampling

It should be noted that the format adopted by the Codex Alimentarius Commission for the elaboration of its commodity standards provides an excellent guide for the structuring of Product Standards for inclusion in Export Product Regulations. The headings included above reflect the Codex format. The use of Codex Standards in Export Regulations is referred to later in this Chapter.

It is of particular importance to remember that in formulating product standards the objectives are to market goods that do not threaten the health of the consumer and which compete successfully with similar products from other exporting countries. It is self-defeating to set standards that cannot be met by industry because of the quality limitations of the raw material available or the technical capability and capacity of that industry. It is therefore essential that the formulation of export product standards be a collaborative exercise involving both the relevant industry and the agency administering the EQCIS. Some countries establish standing Technical Advisory Committees for this purpose.

Because of the variations in the quality of a product they are able to produce, some countries provide in their Product Standards for Quality Grades. For example, FANCY quality as the highest grade, CHOICE quality as the next highest grade and STANDARD quality as the lowest grade that may be exported. This device is useful in marketing the widest possible range of product while retaining credibility as a reliable supplier. Where this is done, countries provide in their Product Regulations for specifications for each grade.

Packaging of Prescribed Goods
Requirements to be complied with

Trade Descriptions
- Compulsory trade descriptions
- Exceptions

Export Clearance
- Notice of Intention to export prescribed goods
- Export Permits
- Certificates as to condition of goods at time of export
- Customs clearance
- Re-examination of prescribed goods
- Passengers’ baggage

Inspection Procedures
- Inspection by authorized officers
- Inspection categories
Systems of inspection
Changes between inspection categories
Additional inspection arrangements
Sampling for inspection purposes

Storage, Loading, Transport and Security of Prescribed Goods
Storage for export
Loading for export
Transport of prescribed goods intended for export
Use of official marks

Prescribed Goods Unfit for Export
Rejection of prescribed goods
Goods unfit for export but fit for human consumption
Goods rejected for export and resubmitted for inspection
Goods unfit for human consumption

The logical and orderly arrangement of detailed Regulations, such as Product Regulations, is essential if they are to be easily followed and their provisions easily located. As indicated above, it is useful in this regard to locate the detailed technical data of the Regulations in 'Schedules'. The following is a suggested series of Schedules for inclusion in Product Regulations. It should be noted that the Schedules relate directly to some of the 'Parts' included above.

Schedule 1
Registration Requirements for Export Establishments

Schedule 2
Operational and Hygiene Requirements for Registered Establishments

Schedule 3
Export Product Standards

Schedule 4
Packaging Requirements for Export Goods

Schedule 5
Trade Descriptions for Export Goods

Schedule 6
Export Inspection Procedures for Prescribed Goods

Schedule 7
Transport and Storage of Prescribed Goods for Export
THE DEVELOPMENT OF PRODUCT REGULATIONS

In food exporting countries product regulations for foods for export are usually different from product regulations for foods for domestic consumption. This is a reflection of the fact that what will satisfy consumers in a producing country will not necessarily satisfy consumers in importing countries. And it follows, that if food exporters wish to sell their goods in other countries they must give the consumers in those countries what they want by way of quality. As well, exporters must comply with the statutory requirements of those countries. Consequently, the formulation of product regulations must necessarily take account of two things; first, the statutory or food law requirements of importing countries and second, the minimum quality standards that will meet consumer expectations in importing countries and enable the exporting country to compete effectively with other exporting countries on world markets.

Essentially, the mandatory requirements that importing countries apply to foods entering from other countries are much the same as the requirements they apply to their own locally produced food and generally relate to food safety, to which reference is made in Chapter 1. As indicated in that Chapter, current major food safety concerns relate to contamination from micro-organisms, residues of agricultural and veterinary chemicals (pesticides, antibiotics, etc.), mycotoxins, environmental contaminants (heavy metals), filth, food additives and excessive radioactivity.

In formulating Product Regulations provision must be made for ensuring consumer safety by including, as appropriate, mandatory maximum levels for these categories of contamination in addition to stipulating practices to be adopted at the various steps in the preparation or processing of the products to prevent contamination taking place. Provision can be made for these in the following ways:

Micro-organisms, Mycotoxins and Filth

The adage, that prevention is better than cure, applies equally to the contamination of foods as it does to other human situations. The prevention of the presence of micro-organisms, chemicals, mycotoxins and filth in foods is much easier than their removal from foods that they contaminate. Product Regulations in many countries recognize this by the inclusion in those Regulations of provisions that are aimed at the cleanliness and hygiene of product, equipment and the establishment and its surrounds, generally at all stages of the food handling and processing chain. Many of the Parts proposed above for inclusion in Product Regulations relate to food hygiene or, in other words, the confinement of micro-organisms, mycotoxins and filth to acceptable levels at which they are
not a threat to consumer health. For instance, registration of food establishments as export establishments depends heavily on their hygienic condition and ability to carry out their operations hygienically. Similarly, the operational requirements of a registered establishment are almost entirely directed at preventing harmful contamination of goods by micro-organisms, mycotoxins and filth. In much the same way, the packaging, storage and transport requirements are aimed at preventing contamination of the product or goods.

Until relatively recently countries desiring to include mandatory food hygiene provisions in their food law and regulations, whether for application to local foods or foods for export, had to develop their own provisions, taking into account the current state of knowledge about food hygiene and microbiology. Now, however, food legislators have available for reference an array of Codes of Hygienic Practice for foods as well as other guidelines dealing with Good Manufacturing Practices.

The most comprehensive Codes of Hygienic Practice for foods have been elaborated by the Joint FAO/WHO Codex Alimentarius Commission. Those Codes, a list of which appear at Annex 2, are ideal for inclusion in either whole or part, or by reference, in Export Product Regulations. The contents of each Code are arranged under appropriate headings depending on the products covered by the Code. A typical arrangement of a Code is as follows:

Hygiene Requirements in Production/Harvesting Area;

Establishment; Design and Facilities,

Establishment; Hygiene Requirements,

Personnel Hygiene and Health Requirements;

Establishment: Hygienic Processing Requirements;

Quality Assurance;

Storage and Transport of Finished Product;

Laboratory Control Procedures;

End-Product Specifications;

In particular, the Codex Alimentarius Recommended International Code of Practice For Ground Nuts (Peanuts), CAC/RCP 22-1979 makes particular reference to mycotoxins.
The formulation of microbiological specifications for inclusion in Product Regulations is relatively difficult. In the first place, there is a significant range of foods for which the adoption of specifications for micro-organisms is quite inappropriate - many unprocessed foods fall into this category. In the second place, to establish maximum levels for micro-organisms that are too restrictive may lead to unnecessary food wastage by the condemnation of product or goods that in reality do not present a health risk. To set maximums that are too generous is to place the consumer at risk.

Unfortunately, it is difficult to establish precise limits for micro-biological contaminants in the way that precise limits (numbers) can be established for, say chemical contaminants. However, there have been, and are, a number of eminent national and international organizations that have developed, and are developing, acceptable microbiological specifications (and methods for their determination) for the larger proportion of those foods highly susceptible to contamination by microorganisms. To assist in the formulation and adoption of microbiological specifications, the Codex Alimentarius Commission has developed, 'General Principles for the Establishment and Application of Microbiological Criteria for Foods' (Codex Alimentarius, Volume 1, First Edition) and a number of the Commission’s Codes of Hygienic Practice include advisory microbiological specifications based on the work and recommendations of the before mentioned national and international organizations. In addition, and where appropriate, Codex commodity standards also include microbiological specifications in their 'Hygiene' provisions. All of the foregoing are excellent references for use in the setting of microbiological requirements for Product Regulations.

Another excellent reference for use in formulating requirements for inclusion in Product Regulations aimed at producing hygienically safe food is, 'Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food', included in Part 110 of Title 21 of the U.S. Code of Federal Regulations.

Provisions for the prevention of contamination of food by filth are also included in Codex Codes of Hygienic Practice, and a number of Codex Standards contain a requirement under the 'Hygiene' provision that, 'the product shall be free from objectionable matter.'

Residues of Agricultural and Veterinary Chemicals, Environmental Contaminants and Food Additives

In much the same way that it has elaborated composition standards for a wide range of foods moving in international trade, so the Codex Alimentarius Commission has elaborated, and continues to elaborate, standards for agricultural chemicals (pesticide residues), veterinary chemicals (residues of drugs, growth hormones, antibiotics and other medications), environmental contaminants (heavy metals) and food additives. Those standards are an invaluable reference for those formulating Product
Regulation for foods for export, especially as they relate to a very wide range of commodities and are continually under review by committees of specialists operating under the aegis of FAO and the Codex Commission.

**Radioactive Contamination**

This form of contamination has only recently become of concern to governments and their food control agencies. The result has been that an increasing number of countries have applied minimum levels of radiation to locally produced food as well as to imported food. This has meant that food exporting countries, regardless of their geographic location, have had to provide certification attesting that radioactive levels of their food exports comply with the levels set by importing countries. In some instances this has required exporting countries to acquaint themselves with new technologies and associated analytical techniques.

The Codex Commission has also been giving this currently important facet of food safety considerable attention with a view to developing realistic standards for international use.

**Food Labelling (Trade Descriptions)**

Whereas the trade description provisions of the General Regulations lay down the basic requirements to be adopted in labelling foods for export, the Product Regulations lay down the specific requirements. That is, while the General Regulations require that each product carry a true description of what it is, the Product Regulations lay down what the description is to be. For example, the Product Regulations for canned pineapple may include a labelling requirement as follows:

The name of the product shall be 'pineapple'.

The style, as appropriate, shall be declared; 'Whole', 'Slices' or 'Spiral Slices' or 'Whole Slices' or 'Rings', 'Half Slices', 'Broken Slices', 'Quarter Slices', 'Spears' or 'Fingers', 'Tidbits', 'Chunks', 'Diced' or 'Cubes', 'Pieces', 'Chips', 'Crushed' or 'Crisp Cut'.

The packing medium shall be declared as part of the name or in close proximity to the name: 'Water', 'Juice', the name of the dry sweetener, 'Extra Light Syrup', 'Light Syrup', 'Heavy Syrup', or 'Extra Heavy Syrup', as appropriate.

As part of the name or in close proximity to the name, any seasoning which characterizes the product shall be declared, e.g. 'With X', when appropriate.
When 'Crushed' or 'Crisp Cut' style is packed in natural pineapple juice (whether clarified or not), the following may be stated on the label in addition to the declaration of packing medium: 'Unsweetened' or 'No sugar added'.

When 'Crushed' or 'Crisp Cut' style is packed in pineapple juice and sugar, the packing medium may be declared as: 'Lightly Sweetened' in lieu of 'Light Syrup', 'Heavily Sweetened' in lieu of 'Heavy Syrup' or 'Extra Heavily Sweetened' in lieu of 'Extra Heavy Syrup'.

The type of 'Heavy Pack' or 'Solid Pack' for 'Crushed' or 'Crisp Cut' or 'Chips' style may be stated on the label.

The varietal type may be declared.

A complete list of ingredients shall be declared on the label in descending order of proportion, except that water need not be declared.

The net contents shall be declared by weight in either the metric or avoirdupois, or both systems of measurement as required by the country in which the product is sold.

The name and address of the manufacturer, packer, distributor, importer, exporter or vendor of the food shall be declared.

The country of origin of the product shall be declared if its omission would mislead or deceive the consumer.

When the product undergoes processing in a second country which changes its nature, the country in which the processing is performed shall be considered to be the country of origin for the purposes of labelling.

(NOTE. The above trade description or labelling requirements closely approximate those contained in the 'CODEX STANDARD FOR CANNED PINEAPPLE [CODEX STAN.42 - 1981] and those adopted by a number of countries for inclusion in their Product Regulations for locally produced, imported and export foods.)

While the above labelling or trade description requirements generally meet those required by a majority of countries, it is essential that exporters ensure that the labelling they use on food for export meets the requirements of those countries to which they export.
THE IMPORTANCE OF CODEX STANDARDS IN THE FORMULATION OF PRODUCT STANDARDS FOR FOODS FOR EXPORT

Repeatedly reference has been made throughout the foregoing text to Codex Standards and Codes of Practice. The reason for this is simple. The Joint FAO/WHO Codex Alimentarius Commission, which is responsible for the elaboration of Codex Standards and Codes, is a unique organization in a unique position to formulate such models.

First, it is the only truly international organization in history with the goals of,

- protecting the health of consumers,
- ensuring fair practices in the food trade, and
- promoting the coordination of food standards.

Second, it is the only international organization in the food field that has brought together government regulators, scientists, technical experts and industry representatives in both official and advisory capacities to help develop standards for food manufacturing and trade, including those for raw, semi-processed and processed products.

Third, its standards are unique in that they are developed by consensus on the basis of the best scientific, technical and administrative advice available. That is to say, they are the only credible reference points for foods in the international sense.

Because of its uniqueness the Codex Commission is pre-eminently suited to elaborating and establishing food standards for international trade purposes and uniform adoption on a global basis. Many of the difficulties in international trade in food arise from the need for exporting countries to comply with a confusing multitude of food requirements existing in importing countries. Most of those difficulties would disappear if there were a single set of internationally recognized standards to which food production, preparation and processing could be tailored.

This fact is appreciated by governments of most of the major food trading nations. It is also appreciated by the General Agreement on Tariffs and Trade (GATT) which for more than 40 years has provided the legal framework for conducting international trade. Presently, 96 countries are members of GATT and an additional 31 follow its rules. In its attempt to harmonize international trade, including that in food, GATT has recognized the importance of standardization of food products and specifications for food contaminants that threaten the health of consumers. Consequently, relevant specialist committees of GATT have recommended that the
Codex Alimentarius Commission be responsible for promoting the harmonization of rules and standards for foods especially in respect to consumer health and safety.

Unquestionably, the role of the Codex Alimentarius Commission is pivotal to the harmonization of international trade in food. There can be no doubt that Codex Standards for individual foods and groups of foods, together with Codex Standards for residues, contaminants and additives, and Codex Codes of Practice provide an excellent starting point for those faced with the formidable task of formulating Product Regulations for foods for export. In many cases the Codex Standards can be adopted as they stand directly, or by reference, into Product Regulations with a high degree of certainty that they will meet the requirements of importing countries. In other cases, only slight modification will be required for them to meet import requirements. It can be fairly claimed that the advent of Codex Standards and Codes has made the work of the food regulator and administrator a great deal easier.
ESSENTIAL ELEMENTS OF AN EXPORT QUALITY CONTROL AND INSPECTION SYSTEM

Reference to these elements has already been made in Chapter II. In this Chapter they are dealt with in greater detail. Serious consideration given to establishing and EQCIS must of necessity include a careful study, appreciation and evaluation of each element with a view to providing adequately for it. Restated, the elements are:

A sound legislative base comprised of a law and regulations;

A suitable organization adequately structured to implement sound and well defined administrative and operational procedures;

A competent inspection service;

Effective and acceptable systems of inspection;

Adequate technical support services;

An official system of marking and certification; and

Well defined criteria, including standards for prescribed goods, to be used in food export quality control.

A balanced combination of these elements provides an infrastructure for an efficient and effective EQCIS based on intelligent inspection, sound scientific examination and assessment, and good administration.

A SOUND LEGISLATIVE BASE COMPRISED OF A LAW AND REGULATIONS

This element has been comprehensively dealt with in Chapter IV and V. Suffice to say here, that a sound legislative base is fundamental to the effectiveness and credibility of an EQCIS. To be of value, an EQCIS must be credible in the eyes of food control agencies of importing countries. A country that has an EQCIS supported by a well structured Law and Regulation demonstrates to the authorities of importing countries that its government means 'business'. That is to say, through the force of law, that government genuinely desires to ensure the safety and quality the food it exports.
A SUITABLE ORGANIZATION, ADEQUATELY STRUCTURED, TO IMPLEMENT SOUND AND WELL DEFINED ADMINISTRATIVE PROCEDURES.

A cardinal principle of export quality control and inspection is that an EQCIS is established to improve export performance by assisting exporters, not hindering them. An EQCIS that operates officiously, is uncooperative, and intent only on inspection for inspection sake in its own selfish bureaucratic interest, will almost certainly be counterproductive by retarding export performance, perhaps to the point of industries ceasing export operations.

For the smooth and effective functioning of an EQCIS it is essential to have an efficient organization to carry out its day-to-day operations. The planning and establishment of this organization should enable it to cope easily with whatever volume of goods are present for export and, by doing so, keep pace with shipping deadlines of food exports.

The organization responsible for the EQCIS may be established within, or attached to, a department responsible to one of the government's ministries. In India, the Export Inspection Council and related agencies are responsible to the Ministry of Commerce. In Australia, the Australian Quarantine and Inspection Service is within the Commonwealth Department of Primary Industries and Energy, which is responsible to the ministry of the same name. Currently in Thailand, a number of departments have export control responsibility for specific products - the Department of Fisheries for fish products, the Department of Livestock Development for meat and meat products and the Department of Agriculture for canned fruits and vegetables - with all three departments being responsible to the Ministry of Agriculture and Cooperatives.

Alternatively, some governments have established independent organizations to operate their EQCISs. For example, in the People's Republic of China, responsibility for food export quality control and inspection rests with the State Administration of Imports and Export Commodity Inspection (SIAC) under the direct jurisdiction of the State Council. And Thailand has recently established a Centre for Export Inspection and Certification of Agricultural Products (CEICAP) which it is proposed will ultimately be responsible for all export quality control and inspection of foods and agricultural products. Which of these approaches is adopted depends directly on a government's political and bureaucratic conventions and the importance of food exports to the national economy. However, whatever the arrangement, the aim of the organization responsible for the EQCIS should be the same - to ensure efficient and effective operation of the EQCIS in achieving its objectives.

Institutional Arrangements for Food Export Quality Control and Inspection

The principle activity of the agency responsible for the EQCIS is to inspect prescribed goods for export to determine whether they meet the statutory requirements
applying to them. Subject to the goods passing field inspection and laboratory examination, the agency will issue the necessary documents to enable them to be exported. If the goods fail to meet the statutory requirements, the agency will take the steps necessary to ensure that they are not exported.

In some countries, the agency responsible for the EQCIS also inspects food products to ensure that they comply with the importer's or buyer's specifications. Whether an agency does this depends on the attitude of its government. If the government believes that its national credibility as a reliable supplier depends on ensuring compliance of the final product with the importer's or buyer's specification then the agency will be required to carry out the necessary inspections to ensure they do so. However, the attitude of some governments is that the importer's specification are exclusively a commercial matter between the exporter and importer and should not be a concern of the agency responsible for the EQCIS. This attitude reflects the view that all prescribed products that meet the statutory requirements applying to them should be approved for export regardless of the importer's specification. This view, for example, is held in Australia.

More often than not, export quality control and inspection agencies are government instrumentalities whose officers take care of all aspects of the EQCIS. However, in some countries private inspection agencies employing fully trained inspectors and having approved laboratory facilities carry out export quality control and inspection work for the government agency responsible for the EQCIS. Under such an arrangement, the private agency is required to abide strictly with the same law, regulations and procedures established by the government and which apply to the government agency itself. The level of employment of private agencies in this way in the field of food exports is diminishing, largely because of the increase in government-to-government arrangements requiring inspection and certification of goods by authorized government officials of the exporting country. Also, because private agencies operate on a commercial basis, it is believed by some that their level of objectivity may be impaired by commercial considerations. It is noteworthy that private food inspection agencies do provide a valuable service to exporters and importers by establishing on their behalf that specifications included in contracts have been complied with.
Basic Structure of a Model Food Export Quality Control and Inspection Agency

MINISTRY or POLITICALLY APPOINTED BODY

DEPARTMENT

Advisory Board or Council

FOOD EXPORT QUALITY CONTROL AND INSPECTION AGENCY

Director General

Deputy Director General

Senior Directors

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Policy Directorate

Quality Control & Inspection Directorate

Administrative Directorate

- Strategic Planning
- Policy Projects
- Compliance Policy
- Intern'l Negotiation & Programmes
- Ministerial Liaison
- Secretariat, Advisory Board or Council
- Programme Evaluation
- Inter-department Liaison
- Overseas Representative

- Inspection Programme for prescribed Goods
- Compliance Programme
- Registering Export Establishments
- Product Descriptions
- Labelling
- Documentation
- Certification
- Technical Support
- Quality Assurance

- General Administration
- Financial Management
- Public Relations
- Legal Services
- Property Control
- Recruitment
- Personnel Management
- Staff Training
- Industrial Relations
- Information Centre

Joint Control of Regional and Local offices
(Both of which will be staffed by Inspectors, administrative staff and perhaps other technical support staff as well as possessing laboratory facilities)
It is stressed that the above structural model is nothing more than that. Any country embarking on the establishment of an EQCIS and the agency to be responsible for it would have to assess its needs and then tailor the system it adopts and the agency to meet those needs. If anything, the above model represents a sophisticated organization. This has been done deliberately to indicate the functions incorporated into EQCISs already existing in some of the larger and most prominent food exporting countries.

Regardless of the size and sophistication of an export quality control and inspection agency there are certain functions other than purely inspection which it must undertake if it is to satisfy its objective of being of optimum assistance to exporters. These functions include the collection, collation and analysis of statistics for foods exported, including detentions and rejections. This is necessary to determine where work priorities lie and where the agency should concentrate its resources. It also enables the agency to promptly follow up detentions and rejections with a view to instituting remedial measures and preventing recurrences.

The agency should also provide a 'Reference Centre' in which are assembled the statutory import requirements of foreign countries, available for use by exporters. It should also create a library of the food laws and regulations of other exporting countries for purposes of comparison and knowing the statutory circumstances under which competing countries operate. Additionally, it should obtain all international food standards, including Codex Standards and Codes as well as those of other organizations formulating food standards.

Most importantly, it should establish lines of communication with the import quality control and inspection authorities of the countries in which its country's exporters market products. There are very good reasons for doing this.

- **First**, it helps develop and nurture mutual trust and understanding.

- **Second**, both inspection and analytical procedures can be discussed and agreed.

- **Third**, the agency can quickly question or raise objections to import requirements that it believes are harsh or unjustifiably restrictive.

- **Fourth**, when products are detained or rejected by the quality control and inspection authority of an importing country, the agency can quickly consult the authority seeking a quick acceptable solution if one is available. Often, compromise solutions can be facilitated by the mutual trust and respect resulting from a close relationship developed between the two organizations over time.

- **Fifth**, the exchange of technical and procedural information is facilitated.
- **Sixth**, problems that have the potential for bringing to a halt the trade in a product or products between the two countries may be solved at the authority/agency level before they become subjects for political disputes at the national level.

- **Seventh**, it paves the way for the negotiation of agreements on export quality control and inspection matters, including levels of inspection, methods of analysis, and certification, which may result in the adoption of Memoranda of Understanding (MOUs) that provide for reduced inspection levels at points of import.

**Location of Food Export Quality Control Offices**

In order to provide an immediate service to the export trade, it may be necessary to locate local and regional EQCIS offices with inspectors, administrative staff, and perhaps technical support staff and laboratory facilities, at export points (ports, airports and rail and road terminals) and at important food manufacturing and processing centres. In the export food trade the capability to respond quickly to orders from foreign buyers is essential to successful marketing. For this reason, exporters must have available an export quality control and inspection service that in no way limits their ability to supply at virtually a moments notice.

The location of local and regional offices should be decided with care to ensure the best service possible to food exporters. Consultation about locations with food exporters, manufacturers, processors and, in the case of unprocessed foods, with growers is essential if office locations are to be selected which lead to economy in operations as well as unimpeded movements of food in the export trade. Promptness in export inspection and laboratory examination are essential if delays in shipment are to be avoided, unnecessary storage of goods awaiting inspection prevented, and the quality of short-life perishable foods not to be threatened.

Regional offices are those responsible for overseeing and coordinating the activities of local offices in the region. Their location may be influenced by ease of communication with each of the local offices and the services the regional office provides. For example, in some countries laboratories and technical support services are provided only by the regional offices, making it necessary for their location to be as central as possible to all local offices in the region, if those offices are to provide the prompt service referred to above.

**Sound and Well Defined Administrative and Operational Procedures.**

To deliver the service to exporters that it should, the agency responsible for an EQCIS must not only be well structured but it should also have well defined and simple administrative procedures for such things as registering establishments, inspecting goods for export, issuing export certificates and rejecting goods for export. Well defined
procedures are generally step-by-step procedures easily followed and which leave no
doubt in the minds of exporters what is required of them. This leads to efficiency and
effectiveness. Such procedures also gain greater acceptance because all exporters
know that they are subject to the same procedural requirements as other exporters.

Similarly, an agency that has logically and scientifically based inspection
procedures for such things as establishment approval, physical inspection, sample
taking for laboratory examination and analysis, lot inspection and inspecting packaging
and labelling is most likely to be seen by industry as being efficient, cost effective and
helpful.

A COMPETENT INSPECTION SERVICE

Inspectors

Food export quality control inspection must be carried out by qualified, well-
trained inspectors who are impartial and objective in their approach. The integrity of
inspectors must be absolute and beyond reproach to prevent any hint of malpractice
which could damage the reputation of the inspection service, undermine its credibility
and consequently do considerable harm to the export trade and subsequently to the
national economy.

The food export quality control inspector occupies a key position in the E QCIS,
and he is the 'eyes and ears' of the agency responsible for it. It is therefore essential
that the utmost care be exercised in selecting and appointing the 'right' people. The
basic and desirable qualifications and experience required of the inspectors to be
recruited should be thoughtfully established, especially as it most unlikely that ready-
made staff will be available. This means that those recruited will require training in both
technical and administrative procedures associated with their work as well as the law
they administer. Additionally, they will require on-the-job training with experienced
inspectors to assist them in avoiding the pitfalls of their newly acquired responsibilities.

Those selecting personnel to become inspectors must be astute in recruiting
people of the right attitude, educational background and presence, who in their
judgement are capable of becoming proficient at their work. Pleasant persons who
present themselves as being helpful, provide intelligent answers to questions, display
a modest confidence and have an interest in food as well as possess some technical
training in food related sciences, often develop into successful inspectors. To be
avoided are those who are overly confident and see the job as an avenue for imposing
their authority on others. To them the letter of the law is sacred and the thought of using
administrative discretion unthinkable. These are inflexible people whose attitude is to
impose requirements in a domineering way as distinct from being understanding and
helpful. This is not to say those considered for selection should not display a strength
of character sufficient to enable them to make and stand by hard decisions, but to
indicate that those decisions should be taken with understanding and a desire to help those exporters who will genuinely respond to help and guidance.

It is important to recognize that food export control inspectors are rather special people. They are engaged in regulatory work - with its elements of policing and restriction, aspects that inherently attract conflict and criticism - that more often than not is mundane, repetitive and lacks excitement in its routine. However, to do their work efficiently and successfully they must possess attributes ranging widely across technical, administrative, diplomatic and instructional skills. Good inspectors possessing these skills are the strength of any EQCIS and the recognition they receive and the levels of their incomes should be commensurate with their responsibilities and attributes. If they are not, there will be a good chance that they will be attracted away by the private sector to other jobs in the food industry.

Training of Inspectors

It is absolutely essential to train inspectors thoroughly. Because of the absence of external courses specifically designed to train inspectors, it generally falls to the agency responsible for the EQCIS to train them. This is customarily done through course work and on-the-job instruction.

Many of the best inspectors are either graduates in food related sciences or have a background in the food industry that has exposed them to technical aspects and trade practices of the industry. In addition, inspectors require training by the agency in the production, processing and marketing of foods and to assess organoleptically (by sight, smell and taste) the quality of foods for export. The inspector must also be well informed about subjects such as packaging, labelling, pesticide residues, food additives and contaminants and the statutory requirements of importing countries. A detailed knowledge of the legislation upon which the EQCIS is based and from which the agency draws its authority is also essential. A thorough grounding in administrative procedures associated with inspection, the documentation involved, inspection marks to be used and certification to be given is also necessary.

On-the-job training with respect to the registration and approval of food manufacturing and processing establishments, quality control and good manufacturing practices should be comprehensive and painstaking. Training in sampling techniques, the use of sampling equipment and the handling of samples should be given on-site.

It is most important that inspectors be made aware of the national significance of their role and the contribution their efforts make to the well-being of the community. It is true to say that sound training of inspectors (and other staff, for that matter) promotes self esteem amongst them that leads to a professional attitude towards the agency’s work which, in turn, helps sustain a high level of morale in the agency.
On completion of their initial training, inspectors should be capable of more than solely coping with their inspection responsibilities. They should also be equipped to guide and instruct food exporters, whether they be processors, growers or merchants, about the most important facets of their operations, including such things as quality control, good manufacturing practices, plant hygiene, food storage, transport and handling, export procedures and the requirements of importing countries.

As a form of training to widen experience, some export food control and inspection agencies adopt a policy of transferring inspectors and other agency staff to and from local and regional offices at regular intervals, for example, every three years. This helps to improve the knowledge and extend the horizons of inspectors. It is also a useful device for training future senior supervisors and administrators whose positions will require a wider knowledge of the agencies activities and responsibilities than could be obtained in the one local or regional office for an extended period.

Training of inspectors and other staff should not finish with that given when they first join the agency. It should be a continuing process that includes not only technical and administrative aspects of the agency’s work, but also courses that provide for the personal development of staff. This may even extend to sending senior inspection staff to other countries for training in new technology and techniques and to familiarize themselves with trends in export quality control and inspection, especially in countries with highly developed and sophisticated EQCISs. The principle underlying a training programme should be that the training offered is 'needs' based. That is to say, there should be a demonstrated need for the training and it should not merely be offered on the basis of training for training's sake. The latter is wasteful of both time and valuable resources. To prevent this, the views on where training needs lie should be sought from staff. Training should never be established in the hope that it will be useful. It must be established with staff beforehand that it is required and will be useful. Training is not only a way of improving the effectiveness and efficiency of an agency but is also a way of demonstrating the interest of the agency management in the well-being of staff.

Annex 3 of the Manual includes the types of training that could be considered as part of an agency’s strategy for the development of staff to continuously discharge their duties in the best possible manner.

**General Duties of Inspectors**

In essence these may be stated as follows:

To provide utmost assistance to exporters of prescribed products by way of ensuring that their products meet mandatory requirements, especially those of importing countries, and are not detained or rejected at their destination.

To carry out inspections and collect samples for analysis as required by the law and regulations in connection with the approval and registration of export
establishments, the licensing of exporters and the approval and certification of final product for export.

To prepare, as appropriate, reports of inspection visits in an approved format and submit them to the supervising inspector.

To recommend the registration of premises as export establishments, the licensing of exporters and the issuing of certificates to the supervising inspector for subsequent action by the chief of the agency or his delegate.

To prepare written advice to exporters and processors about deficiencies in their operations and final products resulting in the refusal of registration of premises, the issuing of licenses, or the issuing of certificates for product presented for export, together with advice about what needs to be done to rectify the deficiencies.

To assist with the issuing of export certificates and direct and assist with the stamping of cartons of approved final product with the 'Approved for Export' mark.

To assist with informing and advising exporters about mandatory export requirements, including the requirements of importing countries, by way of giving talks to industry groups, assisting with the arranging of 'export' workshops for industry, participating in workshops arranged solely by industry, helping with demonstrations and exhibitions at local agricultural shows and trade exhibitions about EQCIS related activities.

Where requested to do so, assist exporters with the training of workers in export establishments in the essentials of export quality control and good manufacturing practices. For example, personnel hygiene, plant hygiene, product handling and so on.

**Supervision of the Work of Inspectors**

Because of the very important and sensitive nature of export quality control and inspection, the work of inspectors and related staff must be subject to constant supervision by senior inspectors or supervisors. This may be done by carrying out random and unannounced audits on the work performed by inspectors and routine reviews of sample collection and inspection reports. A well-developed routine system of passing information upwards, downwards and laterally should be established to ensure the widest possible dissemination of 'need-to-know' information throughout the agency and eliminate the possibility of inspectors accused with neglecting their duties, claiming ignorance of what was expected of them.
Occasionally, inspected and certified goods should be rechecked at point of export to ensure that they, in fact, comply with prescribed requirements. Strict disciplinary action must be taken against inspectors who are derelict in their duty by being unable to give an assurance that foods they have inspected, certified and cleared for export are indeed fit for export.

EFFECTIVE AND ACCEPTABLE SYSTEMS OF INSPECTION

All export quality control and inspection of foods is relatively expensive and becomes more so as the inspection becomes more intensive. That is to say, continuous inspection with inspectors on the processing line during all processing is much more expensive than inspection of selected samples of final product.

Circumstances very largely determine which system of export inspection is adopted. In general:

**Continuous inspection is necessary where;**

the health risk status of the products is high, and/or foreign governments require it, as in the case of meat and meat products.

the exporter is unreliable and his operation and products are suspect.

**Non-continuous inspection or monitoring** is generally adequate where;

the health risk of the product is low and the governments of importing countries do not require continuous inspection of processing. This is the case with much canned product, including canned fruits and vegetables. There are some exceptions, for example low acid canned foods such as some fish and fungi.

Some countries have adopted levels of inspection intensity under their product monitoring system. For example, 3 levels of inspection may be:

**Reduced** - a level of inspection at which only 1 in 3 batches submitted for assessment will be inspected.

**Normal** - a level of inspection at which only 2 in 3 batches submitted for assessment will be inspected.

**Tightened** - a level of inspection at which every batch submitted for assessment will be inspected.
Movement of export establishments between inspection categories depends on performance evaluated by the number of rejections of product during a given period of time. In general, establishments that have no rejections fall into the reduced category while those with a high level of rejections fall into the tightened category. Establishments in the tightened category may move to the normal or reduced categories depending on the level of improvement in their performance.

Approved Quality Assurance (AQA) Arrangements

This system of inspection is a relatively recently introduced alternative to traditional inspection systems. This alternative is based on a quality assurance approach in accordance with internationally accepted principles. An AQA arrangement is an arrangement between the agency responsible for the EQCIS and an export food establishment which has demonstrated effective in-house quality control whereby the establishment, under agreed conditions, takes over the inspection previously exercised by the agency. The agency involvement is then limited to monitoring the effectiveness of the establishment’s quality control system through a continuing audit programme carried out by specially trained audit inspectors. Entry of an establishment into an AQA arrangement does not automatically exempt it from check inspections when the agency considers them necessary.

Adequate Technical Support Services

The agency having responsibility for an EQCIS must have technical services to support its inspectors if it is to do its work adequately, and effectively. Generally, technical support services fall into the categories of Information Backup and Laboratory and Testing Support Facilities.

The ever increasing demands of food importing countries for products to meet constantly changing requirements relating particularly to health and safety issues makes it essential that inspectors be kept abreast of those requirements and the implications they have for day-to-day export inspection by way of new inspection techniques, methods of sampling and so on. It is also important that inspectors be regularly and frequently kept informed of detentions and rejections in importing countries of products, that have been approved for export by them, to enable remedial and preventive measures to be taken.

Amongst the ever increasing demands of importing countries is the call for certification of foods attesting that they do not present a health hazard and, as such, are free from any one or more of a number of microbiological and chemical contaminants, additives, agricultural and veterinary substances and additives. Laboratory and testing facilities staffed by competent scientists and other technical staff are a necessary
prerequisite to giving reliable and credible certification that is accepted without question by the food control authorities of importing countries.

Information Backup

Inspection Manuals

These are a means of providing inspectors with a portable ready reference to most, if not all, aspects of their activities. This contributes greatly to the uniform application of legal requirements and inspection and sampling procedures. A further value of manuals is the assistance they give to inspectors in deciding on matters about which there is doubt. Generally, individual manuals are prepared for different products or groups of products and provide inspectors with information which will assist them in making decisions with respect to the statutory, technical and administrative facets of inspection. Manuals are also useful as a point of authority in demonstrating to exporters what is correct in deciding contentious issues. The best manuals are illustrated, and with photographs and drawings show, amongst other things, the differences in grades of a product, the nature of acceptable and unacceptable defects, styles of presentation of products, methods of handling and processing product, and so on.

As an example, the Chapters included in a manual for fish inspectors might be:

- Interpretation of Legislation and Inspection Procedures
- Approvals and Exemptions Under the Export Fish Regulations
- Standards and Codes of Practice Cited in the Export Fish Regulations
- Code of Conduct for Fish Inspectors
- Quality Assurance
- Catching, Processing and Inspection of Fish
- Documents used in the Export of Fish
- Tables, Formulas and Graphs
- Miscellaneous
For the purpose of illustration, the contents of Chapters 1 and 6 might be as follows:

**Chapter 1. Interpretation of Legislation and Inspection Procedures**

- Introduction
- Confirmation of interpretation
- Product Monitoring System for fish and fish products
- Requests from exporters for inspection of product
- Application of the Product Monitoring System
- Use of serial numbers for identification of product
- Inspection procedures to be adopted
- Inspection pathways
- Application of the ‘Approved for Export’ stamp
- Dispute assessment of a batch
- Identification of rejected product
- Product transfers between registered establishments
- Rejections due to high product temperatures
- Assessed product withdrawn from export

**Chapter 6. Catching, Processing and Inspection of Fish**

Types of fish and fish products subject to export inspection - rock lobsters, tuna, prawns, abalone, scallops, scale fish, squid, canned fish, live fish, oysters and mussels

For each of the above types:
- Species
- Product types
- Fishing operations
- Methods of harvesting
- On-board handling
- Handling to registered establishments
- Registered establishments
- Processing procedures
- Canning process
- Inspection procedures
- Size grading
- Styles of presentation
- Packaging
- Refrigeration
- Storage
- Final product assessment
To be of maximum usefulness, manuals must be continually under review and updated to ensure that the information they contain is current. For this reason manuals are often produced in loose leaf form so that replacement pages may be inserted to update existing information or add new material.

For those about to embark on the preparation of export quality control and inspection manuals, a useful reference is, 'FAO Food and Nutrition Paper 14/5 - Food Inspection' published in Rome, 1984 in the series, manuals of food quality control.

Technical Newsletters

It is important that inspectors are promptly informed of changes in inspection procedures and related matters. A most effective way of disseminating this type of information quickly is through a newsletter that is published frequently and regularly. A newsletter is also an excellent means of informing inspectors and other agency staff of in-house matters, alerting them to current inspection problems, incidents of malpractice, detention and rejection statistics, changes in certification and other requirements and a wide range of technical matters.

Laboratory and Testing Support Facilities

Quality control and inspection of foods for export is a highly specialized business requiring not only trained personnel but also adequate analytical and testing facilities. Therefore, laboratory facilities staffed with analytical food chemists, microbiologists, laboratory technicians and supporting staff are absolutely essential for the efficient and effective functioning of any EQCIS.

Planning for Laboratory Facilities

Establishing adequate laboratory facilities, including equipment, can be costly and, as available funds are usually limited, careful planning is required to ensure that the most reliable and prompt service is provided to assure correct results are available in time to meet the demanding deadlines of exporters. When planning facilities, it is advisable to make an inventory of all existing laboratory and testing facilities and to examine the possibility of using their spare capacity for export food control. It is most convenient if the laboratory and testing facilities of the national food control service can also be utilized for export food control. However, quite often additional laboratory and testing facilities may need to be established with the ideal being the agency responsible for the EQCIS possessing its own facilities.

Location and Design of Food Export Quality Control Laboratories

In providing for laboratory and testing facilities, the agency having responsibility for the EQCIS must ensure that their capacity is adequate to meet the demanding shipping deadlines of exporters. Further, the laboratories should be so located that they
are easily reached by both inspectors and exporters. Where transport is slow and unreliable, it may be necessary to locate facilities at export points and at important manufacturing and processing centres. Where transport is efficient and prompt, and there is no delay in dispatching samples and receiving results, it may be more economical to centralize analysis and testing in a single laboratory strategically placed. Some countries have resorted to mobile laboratories but the results have been mixed. Breakages and damage to equipment, especially in rough terrain has resulted in disruption of the service and costly programmes of equipment replacement. Furthermore, the types of analysis now required by many of the largest and most profitable food importing countries requires sophisticated equipment which does not lend itself to being transported about, and requires operation under controlled conditions which can only be achieved in a permanent laboratory building.

The design, size and layout of laboratories, associated facilities and the apparatus needed to equip them will largely depend on the type and number of samples to be processed and the sorts of analyses and tests to be done. The planning should take into account the work needs of the professional staff who are to undertake the analyses and testing, as well as make provision for any future expansion that might be required. Almost certainly, chemical and microbiological facilities will be needed as basic requirements. Facilities for mycotoxin determinations, filth analysis, pesticide residue and veterinary drug analysis, can and packaging material testing may also be required. Provision should also be made for library facilities.

A useful reference for those contemplating the establishment and management of a laboratory is, 'No 14/1 Rev. 1 The Food Control Laboratory' (revised, 1986) in the FAO Food and Nutrition Paper Series No. 14. It is primarily a practical handbook on the establishment of a food control laboratory, and as such discusses the various organizational, administrative, operational and design criteria as a guide to help a new laboratory get off to a good start. It is also useful to guide an established laboratory in which work is expanding and diversifying.

Providing the Use of Analytical and Testing Facilities to Industry

In order to promote the adoption of sound scientific principles of food control in the export industry, it may sometimes become necessary to extend the use of agency laboratory facilities to processors, manufacturers and exporters as a free service or on a fee-for-service basis. The provision of such a service is most likely to take place in the small scale sector where the size of each operation is such that individual processors, manufacturers and exporters cannot afford the expense of establishing laboratories and testing facilities of their own. This possibility should be taken into account when laboratories and testing facilities are being planned.
Recruitment and Training of Laboratory Staff

Laboratories and testing facilities should be staffed by scientifically qualified, trained and competent professionals capable of prompt and reliable determinations. Training courses should be organized at regular intervals for laboratory staff to keep them abreast of the latest analytical techniques in their particular fields. As appropriate, senior laboratory staff should be sent to those countries that are significant importers of their country's food products to inform themselves about the laboratory techniques and procedures used in the examination of those products by the import food control and inspection agencies. In this way, not only is uniformity of approach to analysis and testing established between the exporting and importing countries, but valuable lines of communications are established which very often are useful in preventing detentions and rejections of export product.

Application of Uniform Analytical Methods

The need for following uniform analytical methods cannot be overemphasized. Food manufacturing establishments often have their own quality control services, including laboratory facilities. However, in some cases the methods used in their laboratory analyses and determinations differ from those used by the agency responsible for export quality control and inspection, thus giving rise to different results. This may lead to conflict. Similarly, the methods used by the export agency may differ from those of the agency in the importing country, again giving rise to different results and possible conflict - even litigation. To minimize the possibility of conflicting results, both before and after export, full use should be made of internationally approved and recommended methods. The methods adopted by the Codex Alimentarius Commission are eminently suitable as they take into account recommendations of the International Standards Organization (ISO) and methods developed by the Association of the Official Agricultural Chemists (AOAC), the International Union of Pure and Applied Chemists (IUPAC), methods included in the US Pesticides Analytical Manual, those developed by the International Commission on Microbiological Specifications for Foods (ICMSF) and others.

Laboratory Procedure Manuals

To achieve uniform application of procedures and methods in the food export quality control and inspection laboratories in any one country, it is most desirable to develop a Laboratory Procedure Manual. This manual should contain specific details of procedures to be used in handling samples to ensure their identity and integrity as well as details of the analytical procedures to be adopted. References useful in the preparation of such a manual include a number of texts in the FAO Food and Nutrition Paper Series No. 14 namely;
AN OFFICIAL SYSTEM OF MARKING AND CERTIFICATION

An exporter whose products are approved for export should receive a certificate to this effect, as well as having the approved products or goods marked with an 'Approved for Export' mark. There are two reasons for this. Firstly, it is advantageous for an exporter to have for inclusion in his commercial documents a certificate issued by an independent government agency declaring that the products or goods to which the certificate applies have been inspected and found to comply with the statutory requirements of the exporting country. Such a certificate indicates to the importer that at export the products or goods were sound, and there is evidence to show that products subject to export quality control and inspection by a government agency command higher prices on international markets.

Secondly, cartons, containers or packages marked with a government, 'Approved for Export' mark indicate to foreign buyers that the products or goods they contain have been given government approval. Also, food control agencies of importing countries recognize the 'Approved for Export' mark as an indication that the country of origin has an official export control system. Consequently, this may lead to a less intensive import inspection of the products or goods so marked, especially if the export quality control and inspection agency enjoys a reputation for reliability and has a high credibility.

WELL DEFINED CRITERIA, INCLUDING STANDARDS FOR PRESCRIBED GOODS, USED IN FOOD QUALITY CONTROL

Voluntary Standards

Before the advent of national EQCISs and their associated agencies, a number of export food industries adopted their own standards voluntarily, hence the beginnings of voluntary standards. In some cases, these were set by the most prominent exporters who recognized the greater gains to be made by selling products on the basis of uniformity of quality characteristics rather than selling mixtures of different sizes, colours, textures, taste, smell and so on. They studied their markets and worked hard at supplying each market with products possessing the characteristics they sought. Products of a quality most sought after, they sold at a premium, while products of lesser quality they sold at lower prices. Some exporters of high quality product in particular, packed to the specifications of specific importers only and sold to no others. Other exporters handling product of lesser quality, sold on the open market taking the best
prices they could get. Some exporters would sell product of the poorest quality as long as they made a profit, while other exporters set their own minimum standards below which they would not export. Some export food industries recognized the advantages of establishing a reputation of being reliable suppliers of products of acceptable quality and formed cooperatives to ensure that product below a certain standard was not exported. Despite the adoption of mandatory minimum export standards by governments of most food exporting countries, there are still individual exporters in those countries who voluntarily adopt their own minimum standards which they set above the minimum mandatory standards. This, they argue, gives them a reputation for supplying goods of superior quality and for which they can ask a higher price.

**Mandatory or Compulsory Standards**

In an endeavour to retain their foreign exchange incomes, most food exporting countries have established mandatory, as distinct from voluntary, export standards, including grades, with which products must comply if they are to receive export approval. Whereas once, exporters were always at liberty to disregard voluntary standards if they desired to do so, they must comply with mandatory standards which are embodied in export regulations or similar legal instruments. Chapter V, Food Export Quality Control and Inspection Regulations, discusses in some detail General and Product Regulations, both of which embody the principal aspects of mandatory general and product standards, as well as other compulsory criteria, upon which statutory EQCISs are based. It should be noted that the technical data adopted in mandatory standards is precise and, as such, supportable in law regardless of whether the mandatory standards are for unprocessed foods or processed and semi-processed foods. As stated elsewhere, countries have adopted mandatory standards to ensure the reputation of their products on foreign markets enabling those products to compete successfully with similar products from other exporting countries. Mandatory or compulsory standards are an essential element of any effective EQCIS.

**Mandatory or Compulsory Requirements of Importing Countries**

In much the same way as mandatory standards have replaced voluntary standards in food exporting countries, so the mandatory requirements of food importing countries have become more important, than those mandatory export standards of the exporters' countries. Until relatively recently, exporters who met their own national mandatory export requirements could freely gain entry of their products into most foreign countries. In fact, only a short time ago, many countries had no, or little, food law to protect the health of consumers and prevent unfair or fraudulent practices in the food trade. Even fewer countries had any sort of control over imported foods. As a result, unscrupulous exporters took advantage of the situation and much hazardous and adulterated food moved in international trade and was often 'dumped' in unsuspecting countries with inadequate import controls.
However, the situation has now changed dramatically, and very much as a result of the advent of consumerism and the endeavour of such bodies as the Joint FAO/WHO International Food Standards Programme. Many countries now have standards and requirements for foods that must be met by both domestic and imported products. This has meant that food exporting countries have had to take much greater care than formerly in ensuring that their products meet the mandatory requirements of importing countries. Importing countries have been gradually but effectively improving the efficiency of their import food quality control and inspection systems. This has resulted in many food exporting countries taking the mandatory requirements of importing countries into account in formulating their own export requirements. One very large food exporting country, with a sophisticated EQCIS, cites one of its objectives as being to provide, 'inspection services which ensure that products are safe, wholesome, accurately described and in compliance with the requirements of importing countries'.

An added responsibility placed with food exporting countries by food importing countries is the requirement that governments of exporting countries issue certificates attesting that the products they export meet the requirements of the importing countries. The result has been twofold:

Existing export quality control and inspection agencies have not only to observe their own mandatory requirements for food exports, but now they also have to ensure that the mandatory certification requirements of importing countries are met.

Food exporting countries without EQCISs are either establishing them or seriously considering establishing them, knowing full well that unless they do so the levels of detentions and rejections of their food exports are likely to increase.

The certification requirements of food importing countries are many and varied. The categories of certification required include:

freedom from plant diseases;

freedom from animal diseases;

declaration that the products are safe and fit for human consumption;

compliance with specified levels for;

food additives,
pesticide residues,
heavy metals,
veterinary drug residues,
growth promotants,
micro-organisms,
radioactivity,

compliance with composition requirements;
compliance with labelling requirements; and,
compliance with processing requirements.

It is true to claim that the certification requirements of food importing countries are currently voluminous and increasing. It is not surprising then, that to cope with the demands of importing countries and establish their credibility, most major food exporting nations have either established EQCISs or are about to do so. The motivation for this being that consignments of foods not accompanied by the mandatory certificate completed by an authorized officer of an official government export quality control and inspection agency will not be permitted entry into many foreign countries.

Foreign Buyers’ Requirements

It is still customary for foreign buyers and exporters to agree to the specifications for the goods to be supplied. This is a perfectly sound commercial practice, as long as those specifications do not contravene either the mandatory standards of the exporting country or the mandatory requirements of the importing country. It is now quite customary for a buyer’s specification to merely require the products to comply with one or more of the mandatory standards or grades adopted for export purposes by the exporting country.

Health Hazards

Recent years have seen an increasing interest by consumers in the safety of the foods they eat. Responsible scientific organizations, the media and consumer organizations have helped consumers become conscious of the occurrence of hazardous substances in foods and the threat they pose to consumer health. Generally speaking, consumers are most at ease with food hazards they can see, feel, taste and smell. It is the invisible hazards of additives, residues and contaminants in their minute and organoleptically undetectable quantities that cause consumers most concern. The fear of ill health, or even death, from unseen hazards urge consumers to demand that their governments provide them with protection. It is unlikely that the use of food additives, agricultural chemicals and veterinary drugs and other substances that give rise to residues will cease. Therefore, it is unlikely that the level of consumer concern will abate and the vigilance and activities of import food quality control and inspection agencies of foreign countries decline. In fact, it can be confidently predicted that consumer awareness and interest will increase and the number and activities of import food control agencies will grow in both size and scope.
Standards for Packaging and Marking

Packaging of products for export is in itself a very important aspect of food export quality control. It should be taken into account in the formulation of mandatory export standards. Packaging must ensure:

- the security of the product during transport and handling, and its successful arrival;
- the protection of the product from contamination from both external sources and from components of the packaging itself; and,
- improve the presentation and appearance of the product with a view to enhancing its consumer appeal.

Providing facilities for testing packaging material strength and composition is most important. Unless separate facilities are available elsewhere, it may be necessary to provide for them as part of the laboratory and testing system established by the food export quality control and inspection agency.

Careful consideration should be given to the adoption of a mandatory system of marking packages or containers to assist with their easy identification.

National Standards and Export Standards.

Many countries having an EQCIS also have a separate but similar system for domestically produced and imported foods which incorporates national food standards as distinct from export standards. Generally, export food standards establish higher qualities than national standards for the very good reason that they are to be applied to product sold competitively on foreign markets to earn income. The emphasis of national food standards is on safety and wholesomeness, although in some cases they provide for quality grades which, mostly, are voluntary.

It is most desirable, however, that there be some consistency between national and export food standards, particularly with regard to safety provisions relating to such things as additives, residues etc. The reasons for this are twofold.

- It is not uncommon for excess production of foods for export to be released onto the national market.
- It is a matter of international accord that all individuals should expect as their right to be supplied with only safe, sound and wholesome food. It
therefore follows that a country that exports foods that are not as safe as the foods permitted to be sold by law within its own national boundaries is violating a strongly held ethical principle. It also follows that a citizen of the exporting country are equally entitled to the same consideration as those citizens in foreign markets.

In some countries, where different agencies are responsible for the formulation of national and export standards, representatives of each agency participate in the formulation process of the other. This effectively results in the prevention of anomalies in the two sets of standards.

**International Standards**

At the international level, the **Joint FAO/WHO Codex Alimentarius Commission** is the most prominent and influential body elaborating international standards and codes of hygienic practice exclusively for individual foods and groups of foods. Chapter 9, 'Utilization of Codex Alimentarius International Standards and Recommendations', comprehensively deals with the activities of the Codex Alimentarius Commission and discusses the value and application of the standards and codes it elaborates. Suffice to record here that the Commission's standards and codes of practice are unique in so far as they are developed by consensus on the basis of the best scientific and technical advice available on a global basis. Therefore, the standards and codes are the only credible reference points for foods in an international sense and, as such, are ready made for adoption by countries either in whole or part.

**Regional Standards**

There are a number of regional groups of countries which also prepare standards for food for use by their members. These groups include the Economic Community (EC), the Organization for Economic Cooperation and Development (OECD), the Economic Commission for Europe (ECE), the Latin America Free Trade Association and the Instituto Centroamericano Di Investigacion Y Tecnologia Industrial. All prepare standards for certain food products of particular importance to the member countries of the group. In general, these regional standards are not for foods for which the Codex Alimentarius Commission has prepared or is preparing standards. In fact, the member countries of these groups are mostly members of the Codex Commission which ensures that there is no duplication of activities. When warranted, the Commission may take a regional standard and modify it for international use.

It is important that food export quality control and inspection agencies be familiar with the regional standards of countries to which their countries export foods. Failure to comply with regional standards may result in product being detained and even rejected.
CHAPTER VII

EXPORT QUALITY CONTROL AND INSPECTION SYSTEMS
FOR SOME SPECIFIC FOOD GROUPS

INTRODUCTION

This chapter is intended to provide general information about the requirements and procedures that are essential elements of an effective and successful EQCIS for some of the more important groups of foods moving in international trade. They are:

- Meat and Meat Products;
- Fresh Fruits and Vegetables;
- Processed Fruits and Vegetables;
- Fish and Fishery Products; and,
- Spices and Condiments.

The outlines of the systems that follow are no more than outlines. They do not detail every aspect of each system, but merely indicate the principal requirements associated with each group of products and demonstrate how some requirements differ from one group to the other.

MEAT AND MEAT PRODUCTS

General

The export of meat and meat products is an important element in the economy of some developed countries including Australia, New Zealand, Canada and the United States, as well as some developing countries, especially those of South America. There is an ever present worldwide demand for meats of all description - beef, sheep, goat, poultry, game, manufactured meats etc. - both as fresh and processed product. As a result, developing countries have the opportunity of contributing to this international demand and sharing in what is a very lucrative trade, subject of course to their meeting the stringent requirements demanded by all meat importing countries.

Because of its composition, meat of all sorts is highly susceptible to microbiological and chemical contamination and unless handled and processed in a proper manner may present a serious health hazard to consumers. Consequently, meat
importing countries set high standards for both product preparation and final product involving the severest of quality controls and scientific inspection. It is essential therefore, that countries exporting meat comply with the requirements of importing countries. To do otherwise will almost certainly result in costly rejections and loss of product.

Export meat quality control and inspection is adopted to ensure that:

the source animals are healthy and disease free;

only disease-free meat is exported;

the meat complies with any special quarantine requirements prescribed by the importing country;

the meat does not contain residues of agricultural chemicals (pesticide residues, etc.), veterinary drugs (antibiotics, growth promotants, etc.) or any other contaminants above the prescribed tolerance limits of importing countries; and,

the meat is correctly graded to mandatory standards of either the exporting country or the importing country.

To provide maximum assurance that the above criteria are met, all meat importing countries demand continuous inspection commencing with ante-mortem examination and concluding with final product inspection at time of export. This is generally done by attaching veterinary officers and meat inspectors to establishments, or groups of establishments, on a full-time basis.

Continuous surveillance of product by way of sampling and laboratory analysis is essential to ensure that contaminant levels comply with those prescribed by importing countries.

Approval of Export Establishments

It is essential that each export meat establishment be approved, and provision for this should be included in the export regulations for meat. As stated in Chapter V, an essential part of effective export quality control and inspection is the control of export establishments. A well managed, well equipped, clean and efficiently run establishment is most likely to export safe product of acceptable quality. A poorly managed, poorly equipped, unclean and inefficiently run establishment will not produce goods that are safe and acceptable for export. In the case of meat, importing countries invariably demand that product they import comes from establishments registered by the government of the exporting country. In practice, there are generally three types of establishments requiring registration if product from them is to be exported. They are:
Abattoirs, where animals are slaughtered and dressed to produce fresh meat as such for export, or for further processing.

Processing Establishments, where meat from registered abattoirs is further processed by way of boning, freezing or canning or conversion into a wide range of processed meat products.

Storage Warehouses (including cool stores and freezers), where meat or meat products are stored prior to export.

To prevent contamination of approved product prepared in an abattoir, its transfer to a processing establishment or to a storage warehouse requires the utmost control and this should take place in accordance with mandatory conditions provided for in the export meat regulations. Similar conditions should also apply to the transfer of processed meat products to storage warehouses.

In brief, meat establishments seeking export registration should comply with the following requirements:

Correctly sited to enable proper drainage and minimize contamination of product from surrounding areas and adjacent premises;

Proper construction of the establishment to enable effective operation thereby ensuring a safe and acceptable final product;

Satisfactory surroundings to minimize dust and accumulation of debris, run-off water and waste;

Adequate insect and vermin protection to prevent the entry of those pests into the establishment;

Sufficient ventilation and lighting;

Adequate supply of potable water;

Quick and effective drainage to satisfactory disposal areas;

Efficient and easily cleaned processing and handling equipment;

Adequate hand washing, toilet facilities and amenities (change rooms with lockers, showers, and dining rooms, etc.) for workers;

Adequate facilities (office, desks, cabinets, telephone, shower, etc.) for inspectors, with access to laboratories; and,
Sufficient refrigerated storage for final product.

In addition to the above, the exports regulations should prescribe facilities to be provided in the slaughtering section of the establishment, together with the specifications for them. These would include provision for:

- Holding pens for animals;
- Showers and foot-baths for animals;
- Ramps to facilitate the movement of animals;
- Designated areas for the ante-mortem examination of animals;
- Killing pens and slaughter boards;
- Scalding rooms and de-bristling equipment for pigs; and,
- Special equipment and facilities for game animals, poultry, etc.

The regulations should also provide for:

- Carcase dressing rooms;
- Carcase hanging rooms;
- Separate rooms for condemned carcases;
- Disposal facilities for condemned carcases;
- Offal handling and processing areas; and,
- Animal by-product facilities.

The regulations may also prescribe the format of an application form for the registration of premises as an export establishment, the period for which registration is valid, the conditions applying to renewal of registration, and circumstances under which registration would be cancelled.

**Basis of Inspection**

Meat export quality control and inspection must be carried out with the object of ensuring that the product will comply with the import requirements of the countries of
destination, the export grade standards by which it is described and other provisions of the export meat regulations.

**Inspection Procedures.**

Meat inspection is an inspector-intensive undertaking requiring inspectors to be on the processing line in sufficient numbers whenever processing is taking place. In some cases, meat importing countries dictate the intensity of inspection if product is to comply with their requirements.

**Ante-mortem Inspection of Animals**

It has become a universally adopted export requirement that prior to slaughter all animals must receive an ante-mortem inspection to ensure that:

- those displaying disease symptoms or conditions that would render their meat unfit for human consumption are not processed for human food; and
- only healthy animals are killed on the slaughter floor and that separate arrangements are made for the slaughter of rejected animals elsewhere.

Generally, ante-mortem examinations are conducted by veterinary officers. Each individual animal is examined and only those deemed healthy proceed to slaughter for meat for human consumption. Healthy animals are identified by an 'Ante-mortem Certificate', signed by the examining veterinary officer and passed to the inspector supervising post-mortem inspections.

Animals which are rejected at ante-mortem examination are marked (usually ear-tagged) with a distinguishing 'Suspect', 'Condemned' or 'Withhold from Slaughter' tags depending upon their condition.

**Post-mortem Inspection of Carcases**

This inspection is made of every carcase, and only those carcases that are free of evidence of disease and unblemished are selected for export. Inspection should be made of the head, carcase and viscera by fully qualified inspectors under conditions which enable them to readily detect defective material. For example, adequate lighting is required together with specially designated inspection areas equipped with examination tables and other equipment essential to the completion of satisfactory inspection.

Samples of designated tissue should also be taken for routine laboratory analysis to test for the presence of residues of agricultural and veterinary chemicals and contaminants, as well as microorganisms.
Carcases and parts of carcases which pass inspection should be identified accordingly, usually by way of a prominent 'Approved' stamp. Carcases about which there is some doubt should be held for further examination and stamped with an appropriate mark, such as 'Retained'. Carcases judged to be unfit for human consumption should be marked with a 'Condemned' stamp. All three categories should be kept separated and the utmost security exercised to ensure that they do not become mixed. This is particularly the case with 'Condemned' product which is generally required to be packed in specially marked containers appropriately colour coded. Much 'Condemned' product is transferred to other by-product or pet food establishments with particular care being taken to ensure its isolation from 'Approved' product.

'Retained' product should be meticulously reinspected and laboratory examined to ensure that the reasons for its retention are either substantiated or unsupported. Under no circumstances should 'Retained' product become 'Approved' while the slightest doubt remains about its compliance with mandatory requirements.

The number of veterinary officers and inspectors to be assigned to an export meat establishment will largely depend upon the capacity of the establishment, its speed of operation and the types of animals being processed. However, some importing countries stipulate the inspector/throughput ratios and these must be adhered to when meat is being prepared for export to those countries. To minimize cost and make the best use of resources, it is not uncommon for the larger meat exporting countries to station veterinary officers and inspectors at centres from where they can service a number of export establishments. This is possible because most meat establishments operate on a seasonal basis and few operate a five day week the year round. This means veterinary officers and inspectors can roster their activities to be at establishments only when they are processing.

Continuous inspection is required at export establishments producing boneless meat, edible meat fractions, processed meats (small goods, including sausage, jellied meats, pickled meats etc.) and canned meats. Inspection is required from the time the 'Approved' meat is transferred from the slaughtering establishment or storage to the boning or processing establishment.

At the export canning establishment, inspection commences with the receipt of 'Approved' meat from the slaughtering establishment. From that time, subsequent handling and processing is subject to continuous inspection, through thawing, boning, cutting, slicing, pickling, can filling, can closing, retorting, cooling, warehousing, and finally labelling. Specifications for all of these procedures should be included in the export meat regulations.

The export canning establishment should possess its own quality control laboratory staffed by fully qualified personnel. They should be capable of testing samples selected from each batch or lot, in accordance with an approved sampling plan, for sterility and mandatory requirements of the importing and exporting countries.
Confirmatory testing should also be carried out independently by the agency having responsibility for the EQCIS.

To ensure that the condition of chilled or frozen meat remains satisfactory at time of export, it is essential that it receives a final inspection immediately prior to shipment or loading into shipping-container-units for shipment. These days, meat is transported from one country to another by either land, sea or air. Mandatory techniques should be adopted for carrying out final inspection of product for each type of transport.

To help ensure that product arrives in the same condition as when exported, inspection of storage lockers, shipping container units and refrigeration equipment on board ships and other means of transport should be carried out before loading, and when necessary temperature control and recording devices checked and calibrated.

Product Security

Incidents of dishonesty and unscrupulous practices in the international meat trade are legion. Many of them involve interference with product after its inspection and approval for export. One seriously dishonest practice is that of clandestinely opening sealed containers of approved product, removing it wholly or partly and replacing or substituting it with substandard product of one sort or another. The only satisfactory counter to this and other dishonest practices is to adopt effective measures to secure product following its approval. This is best done by locking the approved product in safe storage using tamper-proof seals which are to be broken only by inspectors of the export quality control and inspection agency.

Issuing of Export Certificates

Prior to the export of meat and meat products, the exporter should be required to notify the export quality control and inspection agency of his intention to export in accordance with the provisions of the export meat regulations and on the prescribed 'Notice of Intention to Export' form. The notice should be submitted in sufficient time before the shipment date to enable the product to be inspected satisfactorily.

When product is approved, the agency will issue the exporter with an 'Export Permit' authorizing Custom's clearance of the product. If required by the exporter, a 'Certificate of Condition' attesting that the product complied with the requirements of the export meat regulations at the time of export, should also be issued.

Subject to the satisfactory inspection and examination of the meat or meat products, the agency will also issue the so-called, 'Animal Health' or 'Veterinary' certificates demanded by importing countries and without which the product will not be permitted entry.
The issuing of correct certification for the export of meat and meat products is critical to successful international marketing. Product for which no certification is provided or for which the wrong or false certification, or certification that is unreliable is provided will invariably be detained at the port of entry and most likely be rejected. This circumstance is to be avoided at all cost.

Whereas importing countries will sometimes exercise administrative discretion and permit the entry of other products that do not fully comply with their import requirements, seldom, if ever, is this the case with meat and meat products. Meat and meat products must comply or entry is denied. Because of their concern about the safety of meat received from exporters, it is customary for importing countries to regularly and frequently send review teams of veterinary officers and inspectors from their import quality control and inspection agencies to assess prevailing conditions of meat processing and preparation in exporting countries. Some importing countries go as far as stationing veterinary officers and inspectors in exporting countries to oversee export operations.

FRESH FRUITS AND VEGETABLES

General

The reasons for inspecting fresh fruits and vegetables are to ensure that:

- they are sound, clean, and disease and insect free;
- they are graded in accord with the requirements of the export fresh fruits and vegetables regulations;
- they comply with the grade description given them by the exporter; and,
- they are adequately packed to make sure their quality will not be impaired during transit and that they will be as attractive on arrival at their destination as they were when exported, and they do not contain levels of agricultural chemicals (principally pesticide residues) and other contaminants in excess of levels stipulated by importing countries.

Basis of Inspection

The export quality control and inspection of fresh fruits and vegetables is directed at ensuring compliance with the requirements of the fresh fruits and vegetables export regulations. Essentially, those regulations should require that the products are sound, disease and insect free; comply with the prescribed grade standards; are packed and labelled correctly and comply with the requirements of importing countries, particularly with respect to freedom from disease, insect pests and residue tolerances. Specifications for packaging and packing should be included in the regulations, and the
number of pieces of product to be packed into containers of different dimensions should be stipulated. Provision should also be made for the use of bulk bins and other containers in the bulk handling of product.

To achieve these requirements, the fresh fruits and vegetables export regulations should stipulate that products for export be handled and packed in registered establishments that comply with mandatory conditions of construction, hygiene and operation. For example, the establishment should be pest proof (birds, insects, rodents and other animals), appropriately lined and roofed and sufficiently lit to identify blemishes and enable correct grading.

The grades adopted for fruits and vegetables for export should result from comprehensive consultation between the agency responsible for export quality control and inspection and the relevant industries. It is nonsense to establish grade standards that are beyond the ability of industry to meet. On the other hand, it does little for exporters if grade standards are set so low that the poorest quality products are eligible for export. A number of the major fruit and vegetable exporting countries have adopted the grade standards elaborated by the 'OECD Scheme for the Application of International Standards for Fruit and Vegetables'. While not all fruits and vegetables are embraced by the scheme many are, and much of the international trade in fruits and vegetables for which there are OECD quality grades is conducted on the basis of those grades. This is largely explained by the fact that many countries importing fruits and vegetables have joined the OECD scheme and adopted its quality grades into their food legislation. Consequently, the grade standards have become mandatory import requirements.

**Inspection and Certification Procedures**

The primary responsibility for ensuring that the export product complies with the fresh fruits and vegetables export regulations should rest with the exporter. He should be responsible in the first instance for making sure that products are free from diseases and insects, are graded correctly and are packaged and labelled in compliance with the regulations. Agency inspectors should be responsible for checking the work of the exporter and taking samples for laboratory analysis. In most cases, inspectors will spend some time in the export establishment when grading and packing is taking place, and at that time will advise and consult with the exporter about his performance. Seldom is continuous inspection required, but some importing countries require it in respect of certain fruit varieties. Other countries stipulate the plan to be adopted by inspectors in selecting samples for inspection.

Because of the intensive use of agricultural chemicals, especially pesticides, in the production of fresh fruits and vegetables for export, inspectors should be familiar with the types of chemical materials used and usage rates. This enables programmes of sampling and analysis for specific residues to be designed to determine whether the tolerances set by foreign markets for those substances are being exceeded. It is also
essential for the inspector to work closely with extension officers of the national agricultural agency to ensure that growers are fully informed of those levels of pesticide usage which must not be exceeded if acceptable residue levels are to result. It is important to recognize that, because they are unprocessed, fresh fruits and vegetables are liable to retain higher residue levels than processed product.

It is often customary for product to be packed into cartons or boxes direct from the grading tables. When packed, each container should be marked to show the:

name of the fruit/vegetable,
name of the variety,
number of whole pieces contained in the container,
grade of the product, and
the grower's/exporter's name, address and registered establishment number and, where appropriate, the export licence number.

In some fruit and vegetable exporting countries much effort has been spent on developing alternative methods for packaging product. In addition to the traditional cartons and boxes, significant quantities of fruits and vegetables are now exported in bulk bins and crates, shipping-container-units, trays covered with plastic skin, individual retailer packs and other systems associated with the use of shipping pallets. Whatever the system, the marking requirements should be the same.

Exporters wishing to ship product should complete the prescribed 'Notice of Intention to Export' form and submit it to the export quality control and inspection agency in sufficient time to permit pre-shipment inspection to be made. If inspection of the product has already taken place at the registered establishment during grading and packing, only a check pre-shipment inspection is required. If, however, the product has not been previously inspected, then an inspection in accordance with the requirements of the exports regulations and/or the requirements of the importing country should be made. Selected cartons or containers are opened, product checked against the designated grade, freedom from pests and diseases determined, samples taken for laboratory analysis and cartons or containers resealed with an appropriate seal as prescribed by the export regulations.

Containers in approved consignments or lots should be stamped with a prescribed 'Approved for Export' mark and secured adequately in storage until shipment to prevent substitution or other interference prior to export.

When product is approved, the export quality control and inspection agency will issue the exporter an 'Export Permit' authorizing its clearance by Customs. If required
by the exporter, a 'Certificate of Condition' attesting that the product complied with the requirements of the fresh fruits and vegetables export regulations at the time of examination can be issued as well.

The agency will also issue an 'International Phytosanitary (Plant Health) Certificate', as prescribed by the International Plant Protection Convention (IPPC), for the product in accordance with the requirements of importing countries. Some countries require additional endorsements to be made on phytosanitary certificates declaring freedom from such things as specific plant diseases, insect pests and weed seeds.

Some importing countries require consignments of fruits and vegetables to be given disinestation treatments prior to export or in transit. Such treatments include fumigation with specified fumigants at stipulated concentrations under controlled time/temperature conditions, and in transit cold sterilization during shipment. In all cases, the treatments must be supervised by the export quality control and inspection agency which is required to provide certification that the treatment has taken place, or in the case of in transit treatments, has been correctly initiated. Certification may be provided by way of separate certificates or appropriate endorsement of phytosanitary certificates.

PROCESSED FRUITS AND VEGETABLES

General

The international trade in processed fruits and vegetables is very large with an ever increasing number of different types being processed and exported. Whereas once, processing was limited to mostly temperate climate fruits and vegetables, the range has now broadened to include tropical and subtropical types. The reasons are twofold. Firstly, consumers’ dietary habits have become more diverse so that, for example, people living in North America may very well like fruits and vegetables grown in Asia or Africa. Secondly, processing techniques, whether they be for canning, freezing or drying, have been improved to an extent where final product is palatable, nutritious and of long and reliable shelf life.

Many developing countries have taken advantage of the continuing worldwide demand for processed fruits and vegetables and earned valuable foreign exchange from exports of product to profitable markets. It is now quite customary to find cans of processed fruits and vegetables from the countries of South East Asia, China, India and South America on the supermarket shelves of developed countries.

The export quality control and inspection of processed fruits and vegetables is directed at ensuring that the final products:

- have been processed in a registered export establishment that is constructed, equipped and operated in an hygienic and efficient manner;
conforms to the requirements of the export regulations for processed fruits and vegetables, and those of the importing country, in respect of such things as quality grades, defects, ingredients, packing media, styles, additives, contaminants, fill of container, drained weight; and,

conforms to labelling requirements.

Inspection and Certification Procedures

In most countries processing fruits and vegetables for export, it is not customary to apply continuous inspection as it is in the case of meat. Few, if any, importing countries require it, and the nature of the products themselves is such that only part time check inspection is required during processing together with statistically based inspection, including sampling and analysis, of final product. However, in circumstances where an establishment is processing export product for the first time, it can be argued that there is merit in adopting continuous inspection until the operation is satisfactorily established.

In any event, inspection of raw material should be carried out at the commencement of each processing run to ensure that only sound fruit or vegetables of sufficient maturity (degree of ripeness) is used for processing. Check inspections of raw material should be carried out as frequently as the inspector thinks necessary.

The inspector must ensure that adequate hygiene practices are followed during the processing of the product. For example, in the case of canned and frozen products, raw material should be washed absolutely clean so that fruit and vegetables entering the processing line are free from filth, superficial residues of agricultural chemicals, insects and extraneous plant material. In the case of dried product, especially where the raw material is sun dried on drying greens or racks, care must be taken to minimize contamination by bird and animal droppings, dust and extraneous plant material. Washing of dried product is often necessary to ensure cleanliness of the final product.

In the case of canning and freezing, the inspector must obtain from management full details of the processing programme for at least the following day so that an adequate inspection programme can be scheduled.

In much the same way as for fresh fruits and vegetable, the inspector must also be aware of the pesticides and other agricultural chemicals used in the production of the raw materials. Necessary laboratory analyses can then be arranged to ensure residue levels in the final product do not exceed tolerances adopted by importing countries.

At the commencement of and during processing, the inspector should pay attention to the state of raw material, the preparation of raw material for processing
(peeling, slicing, dicing, blanching, etc.), preparation and density of packing medium, the state of cans or containers to be used (cleanliness and strength), the cooking or freezing process (time/temperature relationships), can filling and closure and can/container storage.

After processing, the inspector should check the final product to ensure the drained or thawed weight, the vacuum and headspace, packing medium strength and that can/container condition are satisfactory. Statistically based sampling plans should be adopted for the examination of final product to ensure it meets the requirements of the export regulations.

The labelling applied to cans/containers should also be checked to ensure both its correctness and compliance with the export regulations and the requirements of those countries in which the product is to be marketed. Cans should also be examined to make sure that the correct embossing relating to the product, its date of production and the registered number of the export establishment has been applied.

Each registered export processed fruits and vegetables establishment for canned or frozen foods should have its own quality control laboratory sufficiently equipped and staffed to carry out physical, chemical and microbiological examinations of the goods it produces. Inspectors should have access to the laboratory facilities and the establishment's quality control records as and when required. Independent laboratory examination of product should be made by the agency having responsibility for the EQCIS on the basis of a statistically developed sampling plan.

In those countries where fruit and vegetable production is a seasonal event, processing for export generally takes place at the time of peak production and then declines, often to a halt, as the supply of raw materials decline. As a result, most export establishments produce at their peak of production far more product than they export at that time. Therefore, most of them find it necessary to store product for considerable periods before it is exported. Thus, proper storage is essential if product is to retain its quality and cans remain unainted. Inspectors should regularly inspect storage facilities, noting their condition and that of the stored product, looking for signs of deterioration such as pest infestation and rusting of cans.

Prior to export, the exporter should be required to notify the export quality control and inspection agency of his intention to export in accordance with the provisions of the export processed fruits and vegetables regulations and on the prescribed 'Notice of Intention to Export' form. The notice should be submitted in sufficient time before the shipment date to enable the product to be inspected satisfactorily; the intensity of inspection depending on the original state of the product, the conditions under which it has been stored and the length of storage.

When product is approved, the agency will issue the exporter an 'Export Permit' authorizing Custom's clearance of the product. If required by the exporter, a 'Certificate
of Condition’ attesting that the product complied with the requirements of the processed fruits and vegetables export regulations at time of export will also be issued.

**Low-Acid Canned Fruits and Vegetables**

Within recent years food quality control and inspection agencies in all countries have become concerned about the health hazard associated with low-acid canned foods including low-acid canned fruits and vegetables. Low-acid canned foods are heat processed foods that have an acidity greater than pH 4.6 and a water activity greater than 0.85 and which are packaged in hermetically sealed containers. 'Water Activity' is a measure of the water available for microbial growth. The health hazard comes from harmful bacteria and their toxins, especially the deadly Clostridium botulinum. Low-acid canned foods may include such things as canned vegetable soups, rice, vegetable pastes, mushrooms, noodles, olives, papaya, dry peas, corn, peppers, bamboo shoots, asparagus, eggplant, cucumbers and so on.

Some importing countries, notably the U.S., have introduced mandatory controls over the entry of low-acid canned foods. In the case of the U.S., exporters of those products are required to register their establishments with the U.S. Food and Drug Administration (FDA) and obtain FDA approval for the processes they use in manufacturing those products. Failure to do so invariably results in detention and possibly rejection of the product. It is therefore essential that processors of low-acid canned foods wishing to export them to the U.S. ensure that they have complied with the U.S. requirements administered by the FDA. The requirements of other importing countries for low-acid canned foods should also be carefully followed.

**FISH AND FISHERY PRODUCTS**

**General**

In recent times, the international trade in fish and fishery products has grown enormously, with greatly increased exports from developing countries. The trade, generally, is highly profitable, particularly for those exporting countries that can consistently supply wholesome and safe product to the lucrative markets of the developed world.

Regrettably, far too much fish and fishery product exported does not meet the requirements of importing countries, and as a result is detained or rejected and often wasted with very significant financial losses to both the exporter and the exporting country.

In many ways, the susceptibility of fish and fishery products to contamination and product deterioration is much the same as that for meat and meat products. Consequently, fish and fishery products for export require a similar level of quality control and inspection to that applied to meat and meat products, particularly
immediately prior to export. The objects, then, of export fish and fishery product regulations and associated inspection by the export quality control and inspection agency are to ensure that products:

are sound and wholesome;

have been prepared in a registered establishment that is constructed, equipped and operated in an efficient and hygienic manner in accordance with provisions of the export regulations;

comply with other mandatory requirements of the export regulations, including those for grade specifications, processing, packaging, labelling and storage; and,

comply with the mandatory requirements of importing countries.

These objectives are best achieved by having product subjected to inspection from the time it is received as raw material into the registered establishment, through processing, packaging, labelling and into storage, with regular checks while in storage and final inspection at export.

The adoption of a systematic in-plant quality control system by management of an export fish and fishery product establishment can do much to ensure the quality of final product and its fitness for export. Codex Codes of Hygienic Practice for a range of fish and fishery products are ready-made guidelines for adoption by managements in tailoring quality control systems to suit the particular circumstances of their operations.

**Inspection Procedures**

Inspection by the agency responsible for the export quality control and inspection should be directed at ensuring that the requirements of the exports fish and fishery products regulations are followed meticulously. Each day's production should be considered a lot for inspection purposes and each lot should be treated as a separate unit for which separate inspection and in-process quality control records are kept.

If during the day's operations it is not possible to maintain satisfactory quality control then, subject to the discretion of the inspector, operations should be suspended and not resumed until such time as the required level of quality control is again achievable.

Laboratory testing of raw material, ice, water and the hygiene status of processing surfaces should be subject to continuous laboratory examination to ensure that the requirements of the exports regulations are being met, and that final product
will comply with both the regulatory specifications and the requirements of importing countries.

**Laboratory Facilities**

Registered export establishments should be equipped with their own laboratory facilities including those for conducting microbiological examinations as required by the export regulations. Other samples should be drawn separately by the inspector and submitted for analysis to the official laboratories of the inspection agency.

**Certification Procedures**

Prior to the export of fish and fishery product, the exporter should be required to notify the export quality control and inspection agency of his intention to export in accordance with the provisions of the export fish and fishery product regulations and on the prescribed 'Notice of Intention to Export' form. The notice should be submitted in sufficient time before the shipment date to enable the product to be inspected satisfactorily.

When product is approved, the agency should issue the exporter with an 'Export Permit' authorizing Custom's clearance of the product, and if required by the exporter, a 'Certificate of Condition' attesting that at time of export the product complies with the requirements of the export fish and fishery products regulations.

**Low-Acid Canned Fish and Fishery Products**

A number of canned fish and fishery products including, canned herring, tuna, mackerel, sardines, squid and so on are classified as low-acid canned foods and, as such, are subject to the same import controls as those applied to low-acid canned fruits and vegetables referred to above. Exporters should therefore make sure that they comply with the requirements of importing countries in respect of low-acid canned fish and fishery products.

**SPICES AND CONDIMENTS**

**General**

Spices and condiments are inspected before shipment to ensure that:

they are correctly graded and conform to the grade standards prescribed in the export regulations, and

are clean and insect free.
The formulation of grade standards for spices and condiments is much more difficult than formulating them for say, manufactured or processed foods. This is because the quality of spices and condiments varies greatly depending on cultural conditions such as climate, soil type and rainfall under which they are grown. When grade standards are set, however, it requires careful inspection to ensure that consignments meet them, and meticulous examination of each consignment prior to export is required to make sure that they do so.

Formulation of Grade Standards for Spices and Condiments

This is done on the basis of purity and physical and chemical characteristics depending upon the product. In establishing grade standards, the important characteristics of each product are first determined. Representative samples of the product are then assessed to establish the extent of variation with respect to each characteristic; with similar levels of variation being classified into categories which then provide the basis for grades. The finalization of grade standards for these products should involve consultation with merchants, exporters, importers and consumers, and the taking into account of their views. The characteristics taken into account in formulating grade standards for some important spices include the following:

Black Pepper - Place of origin, garbled or un-garbled, percentage of extraneous matter, presence of light berries, moisture content, extent of pinheads and the size of berries.

Cardamom - Colour, method of processing, size and shape of the capsules, weight as expressed in grams per litre, extent of splits and the percentage of immature and shrivelled capsules.

Red Chilies - Place of origin, season of cultivation, length of the capsule, colour, percentage of damaged or discoloured pods, number of pods without stalks, moisture content, loose seeds, foreign matter and broken capsules.

Ginger - Garbled or un-garbled rhizomes, the size of rhizomes and whether they are bleached or unbleached, the percentage of extraneous matter, weight and place of origin.

Registration for Grading

Those persons or groups of persons who grade spices and condiments for export should be registered under appropriate provisions of the export regulations. The qualifications for registration included in the regulations should be established by the export quality control and inspection agency. Provisions for renewing and revoking such registration should also be prescribed in the export regulations.
Basis of Inspection

Inspection of spices and condiments should be carried out with a view to seeing that they have been properly and correctly labelled according to the prescribed grade standards and packed, marked and labelled in accordance with the export regulations.

Care should also be taken to ensure that the product has been handled and stored under hygienic conditions and has not become contaminated with filth or infested with insects. Although they are dry products, spices and condiments are prone to microbiological contamination and it has been demonstrated that black pepper, in particular, may be contaminated with salmonella.

Inspection and Certification Procedures.

In many schemes of export quality control and inspection for spices and condiments, the primary responsibility for grading the product often rests with the packer or exporter. After being graded, the packer should, as a requirement of the export regulations, notify the export quality control and inspection agency of his intention to export in accordance with the provisions of the export regulations and on the prescribed 'Notice of Intention to Export' form. The notice should be submitted in sufficient time before the shipment date to enable the product to be inspected satisfactorily.

At inspection, the inspector should draw representative samples from the packages selected for examination. These packages should be selected at random and at a level of approximately 5% of the total packages in the lot presented for inspection, with a minimum number of two packages inspected.

An appropriate grade label should be securely affixed in a prescribed manner to each container in a lot for the purpose of indicating uniformity of grade. In addition, each container should be marked with:

the name of the packer;

the net weight;

lot number;

grade;

place of packing; and,

date of packing.
When product is approved, the export quality control and inspection agency should issue a 'Certificate of Grading' to the exporter together with an 'Export Permit' authorizing Custom's clearance of the product. The agency may, however, maintain such supervision over the product until export that it deems necessary.

FURTHER GUIDANCE AND ASSISTANCE

The foregoing export quality control and inspection requirements for a number of groups of products serve to illustrate the complexities associated with establishing effective EQCISs. The details are not intended to discourage the establishment of EQCISs but rather to emphasize the point that there are no short cuts in doing so. To be effective and achieve the objectives intended for it, an EQCIS must have a sound administrative and technical base. This can only be provided by a strong law and regulations prescribing precise requirements implemented and administered by a technically skilled export quality control and inspection agency.

While in most countries the drafting and adoption of laws and regulations is time consuming, the precise technical requirements to be included in them, either as they are or in a modified form, are, as it were, ready-made and readily available. The Joint FAO/WHO Codex Alimentarius Commission has elaborated a wide range of product standards and codes of hygienic practice most suitable for inclusion into export regulations. This means that countries wishing to establish an EQCIS do not have to begin with nothing - they have the Codex material to guide them. Earlier in this manual, (Chapter V), reference is made to the importance of Codex Standards and Codes in the development of product standards. The next chapter refers to the assistance available from FAO in establishing an EQCIS.
CHAPTER VIII
ROLE OF THE U.N. FOOD AND AGRICULTURE ORGANIZATION

THE DECISION TO SEEK ASSISTANCE

As indicated in Chapter III, once a country has decided to establish an EQCIS for foods it must proceed with meticulous care and planning to ensure that when established the system is adequate and competent to achieve its objectives. Above all, the decision to establish an EQCIS must be founded on the strongest political will of the government to make the system work. There is no way that an EQCIS will work if the determination of the government to make it do so is half-hearted. With that determination, the first step in the planning process is to determine what resources by way of personnel and facilities are already available and what additional resources are required. In this latter regard, developing countries planning an EQCIS, and who possess limited resources to establish it, should seriously consider seeking the assistance of the U.N. Food and Agriculture Organization (FAO).

ASSISTANCE WITH PLANNING AND IMPLEMENTING AN EQCIS

Of the U.N. agencies, FAO in particular has provided extensive help to developing countries by way of assisting them to plan and implement EQCISs as part of a larger programme to improve food control, consumer protection and food safety. To the extent that resources, facilities and other circumstances permit, FAO is prepared, upon request, to consider applications from developing countries, for assistance with the establishment of an EQCIS. Assistance may be most comprehensive and involve providing guidance in initiating the EQCIS, formulating a model law and regulations as a basis for consideration by the government of the country, training inspectors, helping with the planning of administrative procedures, providing laboratory facilities and equipment, and training for professionals to use them.

ASSISTANCE WITH THE STRENGTHENING OF EXISTING EQCISs

In the case of developing countries already having an EQCIS, FAO may provide assistance by way of strengthening elements already in place. This may include the enhancement of laboratory facilities and equipment and provision of associated training, the training of personnel of export quality control and inspection agencies to train others, especially in industry, in the critical aspects of food quality control and the essential points of good manufacturing practices, the preparation of training packages and inspection manuals, and the streamlining of administrative and certification procedures.
ASSISTANCE WITH PERSONNEL TRAINING

An EQCIS cannot function effectively and efficiently without trained personnel - both technical and administrative. As mentioned earlier in this manual, most countries do not have a pool of ready-made inspectors, technical personnel and administrative officials to draw upon when establishing an EQCIS, and therefore, they must be trained. FAO has a number of programmes under which inspectors, analysts, technical specialists, and senior administrative officials and supervisors may receive training. A notable example is an FAO/UNDP Regional Project, RAS/89/015, Food Control Training Network in Asia, "under which training is provided in subjects as diverse as 'Management of Food Control Laboratories', 'Quality Control and Inspection of Foods for Export', 'Management of Food Control Programmes' and 'Basic Food Inspection Techniques'."

Some training is given through courses while some is by way of fellowships under which carefully selected and qualified individuals are sponsored by FAO to observe, study or receive specialized training in other countries possessing sophisticated EQCISs, including infrastructures.

REQUESTS FOR ASSISTANCE

Before requesting assistance, the government of a country should have demonstrated its political conviction to establish an EQCIS by having adopted appropriate legislation to do so and included provision for its establishment in the country's national development plan, if such exists. The application for assistance should be carefully prepared to provide a clear picture of the country's economy, how the development of food exports would benefit that economy, the product(s) involved, existing food export quality controls (inspection, certification etc) if any, and a detailed description of the assistance sought, especially as to whether it is intended to be long or short term.

Before assistance will be extended, the applicant country and FAO must agree upon the scope of the assistance, the terms of reference and the apportionment between the two of resource input or, in other words, what resources each will contribute.
CHAPTER IX
UTILIZATION OF CODEX ALIMENTARIUS INTERNATIONAL STANDARDS AND RECOMMENDATIONS

INTRODUCTION

In the current complex international circumstances relating to food it has been recognized that meeting the main requirements of a fully effective food control programme is a difficult task for any country. International cooperation and technical advice are needed to identify food hazards of universal concern, determine approaches to deal with food problems of quality and safety, harmonize food safety and other requirements to promote trade and last, but not least, to exchange information and learn from each other's experiences in food control matters, for the mutual benefit of all. As existing national food control programmes require strengthening and periodic reorientation to adapt to changing priorities and advances in knowledge and technology, managers of agencies responsible for food export quality control and inspection must stay in touch with, and carefully consider, the international activities going on in this important subject area.

In the context of the above, it is useful to discuss in some detail the Joint FAO/WHO Food Standards Programme, which operates through the international intergovernmental Codex Alimentarius Commission, since this programme has the potential for making the maximum impact on national food control systems. There are several other activities, particularly of FAO, and also of WHO, which are geared towards strengthening national food control infrastructures and providing technical assistance to developing countries in the various aspects of food control. To find out more about these activities and programmes and derive benefit there from, it is advisable to write directly to FAO or WHO.

WHAT IS CODEX?

Without going into the historical or structural details, it is sufficient to say that the Codex Alimentarius Commission is a subsidiary body of FAO and WHO established in 1962 as a result of the joint efforts of the two international agencies. Its secretariat is located in the FAO headquarters within the Food Policy and Nutrition Division. The membership of the Commission is open to all members and associate members of FAO and WHO. Some 136 countries were Codex members at the end of 1989. Member countries are under no financial obligations except in the case of those who host a Codex committee, and they provide the costs involved in preparing for and staging meetings of the Codex committee for which they are responsible. Other members are responsible for paying the costs of attendance of their representatives at meetings.
The **Codex Alimentarius** is a collection of internationally adopted food standards presented in a uniform manner. Those food standards aim at protecting consumers' health and economic interests on a global scale and ensuring fair practices in the food trade through reduction of non-tariff trade barriers that are sometimes associated with food labelling, food additives, pesticide residues, veterinary drug residues in foods, food composition requirements and other safety provisions such as contaminants etc. The Codex Alimentarius also includes provisions of an advisory nature in the form of Codes Of Practice, Guidelines and other recommended measures to assist in achieving the purposes of the Codex Alimentarius.

The Codex Alimentarius includes standards for all principal foods, whether processed, semi-processed or raw, for distribution to the consumer. Materials for further processing into food are included to the extent necessary to achieve the purposes of the Codex Alimentarius as defined. The Codex Alimentarius includes provisions in respect of hygiene and nutritional quality of food, including microbiological norms when considered necessary or feasible, provisions for food additives, pesticide residues, contaminants, labelling and presentation, and methods of analysis and sampling.

**HOW DOES CODEX WORK?**

The Codex Alimentarius Commission has its own Statutes and Rules of Procedure which are contained in the Procedural Manual of the Commission. The Commission functions through its various committees or subsidiary bodies. Currently there are 25 subsidiary bodies and two others that follow the same procedures. Like the Commission, all of them are intergovernmental. Codex work is divided between:

(a) Committees which deal with specific foods or classes of foods. These are called commodity committees.

(b) Committees which deal with a specific subject area of concern to all commodity committees. These are called general subject matter committees and cover such things as food additives, pesticide residues, labelling, and analysis and sampling. And,

(c) committees which deal with regional matters. These include the Regional Committees for Asia, Africa, Latin America and the Caribbean, Europe, North America and the Pacific.

The subsidiary bodies of the Codex Alimentarius Commission are shown in Annex 4.

The Commission works through standing procedures which have been built up over a number of years on the basis of practical experience. At all times, the need for objectivity has influenced the development of the procedures which permit the business of the meetings to proceed efficiently while giving full opportunity for divergent views to
be expressed. At the meetings, verbal debate can supplement earlier submitted written comments. As the protection of consumer interests in a food in one place may effectively be damaging to another's national economy or constitute an unfair trade practice in yet another, the practice of open discussion in the Codex forum with adequate supportive data compels reassessment of positions. In this manner, the Codex meetings are instrumental in harmonizing responses to issues relating to potential risk and foreseen benefits which get translated into Codex standards. Before a meeting adjourns the draft report of proceedings is discussed, amended as necessary and adopted.

The Codex procedures for the elaboration of Worldwide and Regional Codex standards are as follows:

**Step 1** The Commission decides to elaborate a standard and assigns the work to a committee. A decision to elaborate a standard may also be taken by a committee.

**Step 2** The secretariat arranges preparation of a Proposed Draft Standard.

**Step 3** The Proposed Draft Standard is sent to governments and international organizations for comment.

**Step 4** The secretariat forwards the comments to the committee for its consideration and amendment of the Proposed Draft Standard as necessary.

**Step 5** The Proposed Draft Standard is sent to the Commission through the secretariat for adoption as a Draft Standard.

**Step 6** The Draft Standard is sent to governments and international organizations for comment.

**Step 7** The secretariat sends comments to the Committee for review and amendments as necessary.

**Step 8** The Draft Standard is sent to the Commission through the secretariat together with any written proposals from Member governments for amendments at Step 8 with a view to its adoption as a Codex Standard.

The next step is to get these standards accepted by governments so that they can become part of national food regulations and be implemented within the country's food control programme. It is only then that the country derives full benefit from this international effort. Codex procedures provide for the 'acceptance' of a standard by a
country in accordance with its established legal and administrative procedures, whether imported or domestically produced, within its jurisdiction in the following ways:

Full acceptance;

Target acceptance;

Acceptance with specified deviations. (Also 'Limited' and 'Target' acceptance in the case of Maximum Limits for Pesticide Residues); and,

Non-acceptance.

For full details of acceptance of Codex Standards reference should be made to the General Principles of the Codex Alimentarius contained in the Codex Procedural Manual.

UTILIZATION OF CODEX

Problems of quality and safety of food can have a tremendous impact on the economy of a country and the health and nutrition of its people. They require careful assessment by relevant specialists and the devising of appropriate solutions. With the Codex Alimentarius Commission dealing with these issues at a global level, many governments of both developing and developed countries have found it necessary to establish 'national codex committees' which brief, or prepare comments for the government during various steps of the development of Codex standards for presentation during the meetings of Codex subsidiary bodies or of the Commission. Adopted Codex standards should reflect a consensus of all member countries of the Commission and timely national inputs are necessary to protect the country's interest or that of the national consumer. This coordinated effort has enabled countries with national Codex committees to examine their national food problems within a global perspective, collect technical and economic data on their food products, and carry out their own cost benefit analyses when feasible and appropriate. No food control manager should forego the opportunity offered by such a mechanism and, in fact, every step should be taken to encourage the setting up of such a mechanism where it does not already exist.

Codex papers (sometimes called position papers), reports, draft codes of practice and standards provide a wealth of technical and scientific data. These are usually organized in a methodical manner and evaluated for consideration by the members and experts. Topical food issues are presented in terms of their significance. Sometimes they also present economic points of view offered by various member governments. Careful review of this information can be of immense value to national food control authorities in strengthening their programmes or reorienting their priorities. They also offer good training material for food control functionaries. Efforts should be
made to keep track of this storehouse of information for the benefit of national programmes.

Besides Codex standards which are sent to members of the Commission for 'acceptance' within the formally established procedures referred to earlier, one should not ignore the importance of the various codes of practice issued by the Commission. These have been referred to earlier in this manual. They have a wide application, are based on good manufacturing practices, and reflect principles which are often universally applicable. In some respects this work on codes of hygienic and technological practices by the Codex Alimentarius Commission is of more importance than that on commodity standards to countries which are concentrating on the strengthening of food control programmes. The Codes offer much information about critical control points within respective food industries and products, and they discuss scientific and technical requirements at various steps of processing. As tools for developing a food control system and sources of advisory information for the food industry the codes provide an invaluable fund of knowledge. Two Codes deserve special mention because of their universal application to food safety and the international trade in food. They are, *General Principles of Food Hygiene* and *Code of Ethics for International Trade in Food*.

The safety of food is always of paramount importance to Codex work. Perception of safety and what is necessary to achieve it do, however, differ. It is well recognized that food safety is a worldwide issue both in the industrialized world and even more so in the developing countries. Codex deals with safety issues through several of its subsidiary committees referred to earlier. To ensure further objectivity in the Codex Alimentarius, advice is sought and taken from FAO/WHO Joint Expert Committees (on food additives, pesticide residues, food irradiation, and veterinary drug residues) which are both authoritative and independent - experts working in their personal capacity rather than representing their governments or institutions. The reports of the various expert committees are sent to the governments and to Codex so that their recommendations can be considered while preparing Codex standards. The worldwide status of the expert committee reports is such that their recommendations are almost universally accepted by industrialized and developing countries. Reference to these reports and those of the corresponding Codex committees offer an excellent resource to which food control managers have access in the development of their compliance policies and which ensure that the genuine concerns of consumers and legitimate concerns of industry have been taken into account. As most developing countries have insufficient resources to generate their own technical and toxicological data, particularly with respect to the safety of chemicals in food, the ideal recourse open to them is to make full use of this international effort.
Consumers want information about the food they buy; for example:

what it is;

how to prepare and use it;

what is in it and how much;

what nutrients it contains; and

what its calorie (energy) value is.

They wish to have this information for a variety of reasons, but primarily in order to:

be able to compare one food with another in making a decision about which to purchase;

compare value for money; and,

be able to avoid ingredients or foods they dislike or to which they have experienced unpleasant reactions.

In addition, food control authorities require identification of lots and date of manufacturing so as to be able to withdraw or recall the food if it has been found hazardous to health. This latter requirement is also necessary for the industry to have its own food quality system working. There are also other demands, including for example, the warranty period for the product and additional nutritional information. However, to attempt to satisfy all demands for such information would be self defeating. Apart from physical limitations imposed by the package surface area, too much information does not inform, it confuses.

The work of Codex in developing and issuing a general standard on the Labelling of Pre-Packaged Food must be regarded as a landmark - a signal achievement - in international recommendations for food legislation. Through the Codex Alimentarius Commission an optimal standard has been devised, that is to say, one that provides for the information consumers require while at the same time providing those requirements of food control authorities capable of being enforced. The standard places no prohibition on additional information being voluntarily included on the label. This standard deserves careful consideration in developing national regulations and compliance policies not only for domestic food but also in developing compliance policies for food for export.
A very important aspect of Codex work which is of direct relevance to the food control agencies in developing countries concerns the deliberations of Regional Codex Coordinating Committees for Africa, Asia, Latin America, Europe, and more recently North America and the Pacific. These committees, particularly the first three, discuss regional issues and spend maximum time on food control problems specific to the region. Food legislation, need for strengthening food control infrastructures, manpower development, technical co-operation amongst developing countries, regional priorities in terms of technical assistance etc. are prominent among the subjects that receive consideration. Committee deliberations provide useful information and guidance to food control managers and international organizations such as FAO and WHO. National managers can raise various food control issues and policies and seek the views of the committee concerned. Very often, such discussions help national food control officials in dealing with some of the technical or managerial problems at home and assist in refining national strategies in the light of the experience of the countries in the region. As some of the national concerns in respect of manpower development, technical assistance, food safety problems (e.g. pesticide residues) etc. lead to the determination of regional priorities, they find their way into the committees’ recommendations. This in turn directs the attention of concerned international organizations such as FAO to the assistance they can extend by way of follow-up activities. Such an opportunity for establishing priorities for matters of regional concern is both useful for national authorities in the region and international organizations thus enabling the use of limited resources at both levels to be optimized.

To sum up, the standards and other recommendations of the Codex Alimentarius Commission and the deliberations of the Codex committees, particularly the Regional Coordinating Committees, offer a unique source of very useful information in an extremely wide range of subjects relevant to food control. Participation in the work of the Codex Commission can provide the type of knowledge, experience and personal contacts that are invaluable for managers of national food control programmes including those for food exports. How, and to what extent, the work of Codex is utilized to the national benefit depends on the individual and the government. However, there is no doubt whatsoever that the technical content of the national food control system and some aspects of its management can be strengthened by learning from the work of Codex.
ANNEX 1

A MODEL FOR AN EXPORT CONTROL LAW

A Law To Provide For The Control
Of The Export Of Prescribed Goods
And For Related Purposes

Explanation of the Model Law

Adoption of the same or similar provisions to those in the following Model Export Control Law gives wide legal power over the export of foods. The Model Law does this by:

requiring exporters to lodge a 'Notice of Intention to Export' (an official form) with the agency responsible for the export quality control and inspection of foods (the 'Export Control Agency') for each export consignment of goods prescribed by the export regulations;

giving the Government authority to prohibit the export of prescribed goods;

requiring all, or some, exporters of prescribed goods to be licensed;

establishing the function and authority of authorized officers (inspectors and other approved officials) of the Export Control Agency;

permitting an authorized officer to seize goods that he knows, or suspects, contravene the Law or related export regulations;

making it an offence to obstruct an authorized officer in the course of his duties;

giving an authorized officer authority to request and receive assistance in the performance of his duties from the person in charge of a registered establishment;

making it an offence for persons to make or misuse official Government stamps and marks used by authorized officers in performing their duties;

prohibiting the use of false or misleading trade descriptions (labels etc.) on goods for export;

Making it an offence for exporters to make a false or misleading statement on any documents associated with prescribed goods for export;
giving authority to the Government to assume ownership of export goods in those cases where a contravention of the Law or related regulations by an exporter is proven;

giving the Director of the Export Control Agency power to delegate his authority to authorized officers and to issue them with identity cards;

protecting authorized officers and those assisting them from legal action in the genuine performance of their duties;

making it an offence for the owner or occupier of a registered establishment to supply (either give or sell) goods to an authorized officer;

giving power to the Minister to make appropriate regulations under the Law that, amongst other things, may include provision for;

- charging fees for the registration of export establishments and other places,
- charging fees for the services provided by authorized officers,
- the analysis of samples of prescribed goods,
- a requirement that exporters keep certain records associated with their activities, and
- providing penalties for contravening the Law.

The regulations referred to in the Model Law are of two kinds.

**General Regulations** which lay down the specific conditions and restrictions applying to all prescribed food products for export.

**Product Regulations** which lay down the specific export requirements for individual products or groups of products. For example:

- Prescribed Goods (Fish) Regulations;
- Prescribed Goods (Meat) Regulations;
- Prescribed Goods (Processed Fruits and Vegetables) Regulations; and,
- Prescribed Goods (Grain) Regulations.
The Model Export Control Law that follows reflects provisions contained in the export control laws of a number of major food exporting countries.

Each 'Part' of the Model Law is prefaced by a Statement of Intention which explains the purpose of that Part. The Statement of Intention is not part of the Model Law.

Statement of Intention

PART 1 PRELIMINARY

Commencement

Interpretation

The intention of this PART is simply to designate the date on which the Law will come into operation and to provide the meanings to be applied to terms and expressions used in the Law. The meanings are for the purpose of the Law and its Regulations only. Meanings of the terms and expressions where used elsewhere outside of the Law and Regulations might be different.

Any term or word used in the Law and Regulations for which no meaning or interpretation is provided assumes the meaning attributed to it by the definitive national dictionary.

It should be noted that meanings used in the Law also apply to its Regulations, and that meanings provided in the Regulations should pay regard to meanings given in the Law.

PART 1 PRELIMINARY

Commencement

1.1 This Law shall come into force on a date to be determined.

Interpretation

1.2 In this Law the following words and expressions have the meanings shown.

Aircraft any machine or craft that can derive support in the atmosphere from the reactions of the air or from buoyancy.

Animal any member, alive or dead, of the animal kingdom, other than man.

Apply in relation to a trade description or an official mark, includes write, print, stencil, mark, emboss, impress or attach.

Authorized Officer (a) an officer of the Export Control Agency, or (b) a person appointed under 5.7 of this Law.
Covering includes any stopper, glass, bottle, vessel, box, container, capsule, case, frame or wrapper.

Director is the Director of the Export Control Agency.

Document includes any written or printed matter, map, plan or photograph, or copies of them.

Examine includes count, measure, weigh, grade or gauge.

Export is to convey prescribed goods beyond the national borders of the exporting country.

False Trade Description a trade description which misleads as to the true nature of the goods including changes to the trade description that make it false or misleading.

Food includes any substance or material used or being capable of being used as food or drink by human-beings, and includes any thing that may be used as an ingredient in or additive to food.

Goods (a) an animal or plant, or parts of them, (b) an article or a substance derived from an animal or plant whether or not in combination with any other article or substance, or (c) food.

Label includes any tag, band, ticket, brand or pictorial representation or any other descriptive matter.

Offence Against This Law includes an offence against the Regulations under this Law.

Ministry the Ministry to which the Export Control Agency is responsible.

Occupier is the person who manages or controls the operations carried on in a registered establishment.

Official Mark any stamp, seal, label or mark that is declared by the Regulations to be an official mark.

Official Marking Device a device that is capable of being used to apply an official mark.

Plant any member, alive or dead, of the plant kingdom.

Premise buildings, annexes, and approaches including land on which they are situated.

Prescribed Goods goods that are declared by the Regulations to be prescribed goods.

Registered Premises whole or parts of premises registered under the Regulations.

Regulations regulations made by the Minister or the Director of Export Control Agency subject to their authority to make regulations.
Ship

any sea going vessel and includes a barge, a lighter or any other floating vessel.

Trade Description

in relation to prescribed goods is any description or statement (whether in the national language or any other language) or pictorial representation which indicates or suggests:

(a) the nature, number, quantity, quality, purity, class, grade, breed, measure, gauge, size, mass, colour, strength, sex, species or age of the goods,

(b) the country or place in or at which the goods were made or produced,

(c) the exporter, manufacturer or producer of the goods or the person by whom they were selected, packed or in any way prepared for the market,

(d) the mode, time or place of manufacturing, producing, selecting, packing or other-wise preparing or treating the goods,

(e) the time before which, or period within which, the goods are to be used,

(f) the batch, lot or other grouping in which the goods are included, and

(g) the material or ingredients of which the goods are composed or from which they are derived.

Statement of Intention

PART 2 EXPORT OF PRESCRIBED GOODS

Notice of Intention to Export Prescribed Goods

Prohibition on the Export of Prescribed Goods

Contravention of License etc. Conditions

For the purpose of the Law, 'Prescribed Goods' are defined as those goods declared by the Regulations to be prescribed goods. For example, prescribed goods may be canned fruits and vegetables, grains, fish, meat and so on. The intention of this PART of the Law is to give the Government absolute control over the export of prescribed goods if it wishes to exercise that control.

This control is achieved in three ways by the PART that follows.
First, no person may export prescribed goods without first informing the Director of the Export Control Agency or an authorized officer (as defined in PART 1) of his intention to do so if he is required by the Regulations to do so.

Second, the export of prescribed goods may be prohibited by the Regulations. That prohibition may be:

- total; or
- apply only to specified destinations; or
- apply only if specified conditions or restrictions are not met; or
- apply only to specified destinations if specified conditions and restrictions are not met.

Third, the control of the Government over the export of prescribed goods is further strengthened by enabling the Regulations to require that a license, permission, consent or approval must be granted before prescribed goods may be exported.

In providing comprehensive export control this PART provides for penalties for those who contravene the Law. The penalties are either monetary, imprisonment or both and should be of sufficient magnitude to deter contravention. Experience has shown that inadequate penalties are treated with disdain by dishonest exporters and, as a consequence, the Law loses its force.

PART 2 EXPORT OF PRESCRIBED GOODS

Notice of Intention to Export Prescribed Goods

2.1 A person who intends to export prescribed goods shall, if required to do so by the Regulations, give notice to the Director or an authorized officer, in accordance with the Regulations, of his intention to export the goods and of the place where the goods may be inspected.

2.2 A person who infringes this requirement shall be penalized by a fine of .........., or imprisonment for ........., or both.

2.3 The Regulations may stipulate the time of giving of the notice of intention and may make different times for different products.

Prohibition on the Export of Prescribed Goods

2.4 The Regulations may prohibit the export of prescribed goods from (name of the country).
2.5 Those Regulations may:

2.5.1 prohibit the export of prescribed goods absolutely;

2.5.2 prohibit the export of prescribed goods to a specified place;

2.5.3 prohibit the export of prescribed goods unless specified conditions or restrictions are complied with; and

2.5.4 prohibit the export of prescribed goods to a specified place unless specified conditions or restrictions are complied with.

2.6 Those Regulations may also require that the export of prescribed goods, or the export of prescribed goods to a specified place, is prohibited unless a license, permission, consent or approval to export those goods has been granted.

Contravention of License etc. Conditions

2.7 Where a license, permission, consent or approval granted under the Regulations is subject to a condition or restriction to be complied with by a person, the person shall comply with the condition or restriction and if he fails to do so, he is guilty of an offence against this Law and shall be penalized by a fine of ......., or imprisonment for a period of ........, or both.

Statement of Intention

PART 3 INSPECTION AND SEIZURE

Inspection

Seizure

Obstructing Authorized Officers

Persons to Assist Authorized Officers

Whereas PARTS 1 and 2 of the Law lay the basis for the comprehensive export control of prescribed goods, PART 3 provides for the enforcement of the Law by authorized officers (as defined in PART 1). It does this by:

defining the function of an authorized officer so that there can be no question as to the extent of his/her authority;

setting down the things an authorized officer may do in carrying out his/her functions;

requiring the cooperation of exporters by way of assisting the authorized officer to carry out his/her functions satisfactorily by providing personnel to help him/her; and,
providing penalties for exporters who obstruct authorized officers in the performance of their functions.

The ultimate authority extended to the authorized officer by this PART is the power to seize and hold prescribed goods and related materials if a contravention of the Law or Regulations is suspected.

However, the PART also provides protection for the exporter in so far as it enables the Director to release seized goods to the owner. Also, an authorized officer may be required by the exporter to identify himself/herself using an official identity card before exercising the power to search or detain vehicles etc. and when requesting assistance from exporters in carrying out his/her function.

PART 3. INSPECTION AND SEIZURE

Inspection

3.1 The function of an authorized officer under this Law is to ascertain whether the provisions of this Law and its associated Regulations, and conditions or restrictions applicable to the export of prescribed goods or to licenses, permissions, consents or approvals to export prescribed goods have been complied with.

3.2 For the purpose of performing the function in 3.1 an authorized officer may, with such assistance as he/she thinks necessary:

3.2.1 enter registered premises;

3.2.2 with the consent of the occupier or with legal authority enter any other premises;

3.2.3 board or enter any vehicle, ship or aircraft;

3.2.4 stop and detain any vehicle, ship or aircraft;

3.2.5 search any premises, vehicle, ship or aircraft;

3.2.6 break open any hold or compartment or any container or other receptacle, including any place that could be used as a receptacle;

3.2.7 inspect and examine any premises, vehicle, ship, aircraft or thing;

3.2.8 secure any premises, vehicle, ship, aircraft or thing;

3.2.9 take samples of any thing; and,

3.2.10 take extracts from, and make copies of, any document.

3.3 Where an authorized officer proposes to search or detain a vehicle, ship or aircraft, he shall, if there is a person in charge of the vehicle, ship or aircraft, produce his identity card for inspection by that person and, if he fails to do so he is not authorized to search or detain that vehicle, ship or aircraft.
Seizure

3.4 An authorized officer may seize:

3.4.1 any prescribed goods (or their coverings) that he believes on reasonable grounds are prescribed goods in respect of which an offence against this Law has been committed; and

3.4.2 anything he believes on reasonable grounds will provide evidence of an offence against this Law, and may retain the prescribed goods or the things for 60 days or, where legal proceedings have been instigated in respect of the suspected offence, until those proceedings have terminated.

3.5 The Director may authorize any prescribed goods or things seized under 3.4 to be released either conditionally or unconditionally to the owner, or to the person from whom they were seized.

Obstructing Authorized Officers

3.6 A person shall not, without reasonable excuse, obstruct or hinder an authorized officer in the exercise of his powers under this Law.

3.7 Any person obstructing or hindering an authorized officer in the exercise of his powers is committing an offence against this Law and shall be penalized by a fine of ......, or imprisonment for a period of ......, or both.

Persons to Assist Authorized Officers

3.8 The owner, person in charge, or occupier of any vehicle, ship, aircraft or premises entered by an authorized officer shall, if requested by the officer to do so, provide reasonable assistance to him in carrying out the functions authorized by 3.2 and 3.4.

3.9 Refusal to provide such assistance by the owner, person in charge, or occupier is an offence against this Law and shall carry a penalty of a fine of ......, or imprisonment for a period of ......, or both.

3.10 When an authorized officer makes a request of a person under 3.8 he shall produce his identity card for inspection by that person and, if the authorized officer fails to do so that person can refuse to comply with the request.

Statement of Intention

PART 4 OFFICIAL MARKS AND TRADE DESCRIPTIONS

Contravention of Regulations Relating to Official Marks.

False Trade Descriptions.
This PART of the Law relates to a most important part of any export control system, namely:

the official marking of prescribed goods for export; and

ensuring that the prescribed goods are correctly described in any trade description that relates to them.

An official mark may be an 'Approved for Export' stamp or any other mark prescribed in the Regulations, and applied to prescribed goods by an authorized officer. In the case of official marks, experience has shown that dishonest exporters may steal them from officials or, alternatively, manufacture counterfeit copies and use them both illegally. The intention of the Contravention provision of this PART is to make it illegal for unauthorized persons to apply or manufacture official marks and to provide penalties for those who do.

The use of false trade descriptions in international trade is not uncommon, and if the reputation of an exporting country as a reliable supplier is to remain credible then the trade descriptions applied to goods must be truthful, accurate and not misleading. Therefore, the intention of the false trade description provision of this PART is to prevent the application of false and misleading trade descriptions to prescribed goods and to provide penalties for those exporters who do not comply.

Many prescribed goods regulations specify the trade descriptions to be applied to the goods they cover. For example, the mandatory trade description may include:

the description or name of the food;
the quality grade (e.g. Fancy, Choice, Standard);
a list of ingredients;
the net contents;
the date of packaging;
the country of origin; and,
the name and address of the manufacturer, producer, exporter or consignee.

In considering the False Trade Description provision it is important to recognize that many foreign countries have trade description requirements in their domestic and import food law that are the same or similar to those above and must be met by exports to those countries.
PART 4. OFFICIAL MARKS AND TRADE DESCRIPTIONS

Contravention of Regulations Relating to Official Marks

4.1 A person shall not, in contravention of the regulations;

   4.1.1 manufacture, have in his possession, apply, alter or interfere with an official mark,

   4.1.2 manufacture, have in his possession or apply a mark resembling, or apparently intended to resemble or pass for, an official mark, or

   4.1.3 manufacture, or have in his possession an official marking device.

4.2 Any person contravening 4.1 shall be committing an offence against this Law and shall be penalized by a fine of ......., or imprisonment for ......., or both.

False Trade Descriptions

4.3 A person shall not apply a false trade description to any prescribed goods exported, intended or entered for export, or put on any ship, vehicle or aircraft for export or brought to any wharf, airport, or other place for the purpose of export.

4.4 A false trade description shall have been applied to the goods if it is applied directly to the goods, or to any covering, label or thing used in connection with the goods, or if it is applied to any document relating to the goods or used in any other way likely to suggest that it describes the goods.

4.5 A person who applies a false trade description to prescribed goods in ways contained in 4.4 is guilty of an offence and shall be penalized by a fine of ......., or imprisoned for ......., or both.

Statement of Intention

PART 5 GENERAL PROVISIONS

False Declarations

Forfeiture of Prescribed Goods

Delegation

Authorized Officers

Identity Cards

Protection of Authorized Officers and Persons Who Assist them

Certification for Goods
Supply of Goods to Authorized Officers

Regulations

This final PART of the model Law extends a range of powers required to implement an effective export quality control and inspection system. Those powers include;

Authority to penalize exporters and others who do not tell the truth when completing documents such as applications for licenses and approvals under the Law and regulations. If sufficient, the penalty acts as a deterrent.

Extending authority to the Courts to order goods that are the object of a contravention of the Law and/or the regulations to be forfeited to the nation. This may be an added penalty, or it may be a measure necessary if the goods are a threat to consumer health or it may be a means of protecting the national commercial reputation.

Prohibiting, at the discretion of the Director, the supply of goods to authorized officers by the owner of a registered establishment or through arrangements made by him. This is an essential power aimed at protecting the integrity and honesty of authorized officers. Experience has demonstrated that inspectors in particular who receive gifts, or goods at concession prices, that have been manufactured at the establishments at which they have been inspecting or carrying out other duties, compromises their integrity and may affect their objectivity.

Enabling the Minister to make regulations under the Law about those things necessary to make the Law work and its objectives to be realized. The Prescribed Goods Regulations are formulated under this power.

PART 5 GENERAL PROVISIONS

False Declarations

5.1 A person shall not make a false or misleading statement in a declaration presented for the purposes of the regulations.

5.2 A declaration shall be any statement submitted to comply with the conditions or restrictions related to the export of prescribed goods or a license, or permission to export prescribed goods.

5.3 Contravention of 5.1 shall be an offence against this Law and shall carry a penalty of a fine of ........, or imprisonment for ..........., or both.

Forfeiture of Prescribed Goods

5.4 Where a person is found guilty of an offence against this Law in respect of any prescribed goods, the Court may order the forfeiture of those goods to the Government.
5.5 Any prescribed goods forfeited may be sold or otherwise disposed of as the Director decides.

Delegation

5.6 The Director may, in writing, delegate to an authorized officer all or any of his powers under this Law, other than his power of delegation.

Authorized Officers

5.7 The Director may, in writing, appoint a person or persons as an authorized officer or officers to implement the provisions of this Law and its regulations.

Identity Cards

5.8 The Director may issue to an authorized officer an identity card in a form approved by the Director.

5.9 When a person possessing an identity card ceases to be an authorized officer he shall return the identity card to the Director or somebody nominated by him, and if he fails to do so he is guilty of an offence under this Law and may be fined.

Protection of Authorized Officers and Persons Who Assist Them

5.10 An authorized officer, or persons requested by him/her to assist under 3.8, or otherwise, shall not be liable to legal proceedings if the authorized officer is genuinely exercising the authority conferred on him by the Law or the regulations.

Certificates for Goods

5.11 Where the director is satisfied that the Government or authority of another country requires a certificate for the export goods before they will be permitted entry to that country, he may issue such a certificate to the exporter.

Supply of Goods to Authorized Officers

5.12 Except when approved in writing by the Director, the person in whose name an establishment is registered under the regulations shall not supply, or cause to be supplied goods produced, prepared or treated in that establishment to an authorized officer.

5.13 Contravention of 5.12 shall be an offence against this Law and shall carry a penalty of a fine of .............. or imprisonment for ............... or both.

Regulations

5.14 The Minister may make regulations under this Law to give effect to matters related to it and may cover such things as;

5.14.1 any fees to be paid for the registration of premises or other places, or vehicles, ships or aircraft;

5.14.2 the separation and isolation of prescribed goods that are found unsuitable for export, and includes their denaturing or destruction, if necessary;
5.14.3 the analysis of samples of prescribed goods and the legal status of such analyses,
5.14.4 the charging of fees in connection with the performance of services by authorized officers,
5.14.5 requiring persons to keep records relating to matters associated with the operation of this Law and its regulations, and,
5.14.6 adequate packaging of prescribed goods to ensure arrival at their destination in the same condition as at export.

In addition to the requirements of the above Law, it is desirable to establish the following details by Prescribed Goods (General) Regulations under the Law to ensure the effective operation of the export quality control and inspection system.

The names of foods (prescribed goods) to be export controlled.

Any exemptions to the provisions of the prescribed goods regulations.

Requirements for the registration of export establishments (premises in which goods are prepared for export) to permit only those that meet minimum standards of hygiene, and are capable of efficiently producing goods to export standards to be registered.

General packaging requirements for goods prescribed for export.

General trade description requirements for goods prescribed for export.

The details to be included on the 'Notice of Intention to Export" to be used by exporters in informing the export control agency about each consignment of prescribed goods they intend exporting, and the procedure to be adopted by the exporter for its submission to the agency.

The conditions that apply to the granting of a 'Permit to Export' by the agency.

Authority for the reinspection of prescribed goods.

Requirements for official marks and official marking devices.

The manner in which samples of prescribed goods for analysis are to be dealt with.

Fees for the services of authorized officers in carrying out their duties.

A provision to enable exporters to appeal against unfavourable decisions relating to prescribed goods for export.
ANNEX 2

CODEX ALIMENTARIUS
RECOMMENDED CODEX STANDARDS
AND CODES OF PRACTICES
### LIST OF_FINAL CODEX TEXTS

#### SECTION I - CODEX STANDARDS

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<tr>
<td><strong>PROCESSED FRUITS AND VEGETABLES</strong></td>
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<tr>
<td>Canned Tomatoes</td>
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<td>General Standard for Edible Fungi and Fungus Products</td>
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<td>Dried Edible Fungi</td>
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<td>Canned Mushrooms</td>
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Chocolate CODEX STAN. 87-1981 "
Cocoa Powders (Cocoa) and Dry Cocoa-Sugar Mixtures CODEX STAN. 105-1981 & Corr. (July 1986 - English only)
Cocoa (Cacao) Nib, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines), for use in the manufacturing of Cocoa and Chocolate Products CODEX STAN. 141-1983 Supplement 1 to CAC/VOL VII-Ed. 1
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Cocoa Butter Confectionery CODEX STAN. 147-1985 "

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1/ Publication as Codex Final Texts has been discontinued. Most of the contents of CAC/PR 2 are contained in CAC/VOL XIII-Ed. 2 and supplements and in occasional working papers.
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1/ The Revised Code of Practice for Low-Acid and Acidified Low-Acid Canned Food will be issued in Volume 1 of the new Codex Alimentarius. The text of the Revised Code, as adopted at the 18th Session of the Codex Alimentarius Commission, is contained in Appendix IV to ALINORM 89/13.
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(∗) Reference not provided.
Subject Reference Publication

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STAFF DEVELOPMENT THROUGH TRAINING

The following types of training could be considered as part of a management strategy for the development of staff to continuously discharge their duties in the best possible manner.

External Technical

Professional officers must have their technical knowledge updated if they are to function at peak efficiency and sustain a strong association with the export quality control and inspection agency. Courses selected for them should be in state-of-the-art developments in technical, scientific and related fields conducted at universities, technical colleges and institutes. They might be in food technology or any of the food related sciences (food processing, food quality control, food microbiology, packaging technology, food chemistry, etc.). Attendance at such courses is generally costly, therefore selection of those to attend should be based on need, their loyalty and contribution to the agency, as well as their ability to use and communicate to others in the agency what they have learnt.

Internal Technical

This element of the training programme should be developed and conducted within the agency. It could include the following types of courses;

- reinforcement of technical skills associated with the agency’s activities,

- new perspectives in food control associated with product development and changing practices in the food trade, changing consumer demands and newer food hazards, and

- an introduction to new technical procedures in food control, both in food inspection and analysis.

Personal Development

This type of training does not only improve the overall performance of the organization, but it also reflects the interest of the agency in providing the means for staff to improve their own personal capacities. Courses offered within the agency should provide training in such things as;

- basic communications,

- public relations,
- basic staff supervision,
- advanced supervision,
- methods and means of instruction,
- health risks and safety procedures, and
- automated data processing.

**Study Tours**

Whenever possible, it is useful to send experienced and senior professional and administrative officers on study tours to food control agencies in countries to where national products are exported or where the food control system is well established. Exchanges of officials between export quality control and inspection agencies can also be very valuable by way of facilitating information exchange and establishing important contacts on a personal level with officials of foreign food control agencies. Though incurring some cost, such study tours help greatly in updating knowledge associated with complex food control problems. Sometimes, opportunities can be taken to undertake such study tours in conjunction with another official assignment such as attendance at a meeting or conference. Examples of important food control areas where there is a need to keep abreast with developments include;

- inspection methods and procedures,
- export certification and endorsements,
- electronic transfer of food control information,
- pesticide residues,
- food additives,
- veterinary drug residues,
- radionuclide contamination,
- packaging, and
- new microbiological hazards.
ANNEX 4

SUBSIDIARY BODIES OF THE CODEX ALIMENTARIUS COMMISSION
* THE CODEX ALIMENTARIUS COMMISSION AND ITS SUBSIDIARY BODIES ARE PROVIDED WITH EXPERT SCIENTIFIC AND TECHNICAL ADVICE BY FAO/WHO EXPERT COMMITTEES AND CONSULTANTS ON MATTERS RELATED TO THEIR PROGRAMMES OF WORK, INCLUDING EVALUATION OF FOOD ADDITIVES, CONTAMINANTS, PESTICIDES AND VETERINARY DRUG RESIDUES AND MICROBIOLOGICAL HAZARDS.