

Voluntary Versus Mandatory Inspection in the Seafoods Industry

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Abstract

The advantages and disadvantages of two different types of Federal inspection services which are used today in the food industry are discussed as they could apply to seafood processors and to the fishing industry in general. A brief status report on the voluntary U. S. Department of the Interior (USDI) fishery products inspection program is included. The general objective of these inspection programs is to assure the consumer of receiving safe and wholesome products and to promote orderly marketing practices through the establishment of uniform and predetermined quality levels.

IT IS A WELL KNOWN FACT that the per capita consumption of fishery products has remained fairly constant over a period of years, while that of poultry and meat has increased substantially. If each of us was asked why this has occurred, many reasons would be advanced, but I would guess that one reason would be common to all replies: the uncertainty of quality of fishery products.

When a person is served fresh, well prepared fish or shellfish at home or in a restaurant, he looks forward to his next seafood dinner. On the other hand, when the individual eats a poor quality fishery product his memory of that experience stays with him a long time. Uncertainty of quality causes both the housewife and the restaurant patron to hesitate to try seafood.

Why does such a situation exist? Through practical experience we know full well the causes of poor quality, and we can explain scientifically the role that micro-organisms, enzymes, and oxidation play in converting freshly caught fish to an inedible product. The means of preserving quality or preventing deterioration are equally well known and available to us. The major fault, therefore, does not lie in the lack of knowledge, although perhaps education at some levels would be helpful; it lies with the unpredictable nature of human beings.

Once fish or shellfish becomes the property of an individual in that long chain of distribution from fisherman to the consumer it assumes a value, and the further along the distribution channel it progresses the greater the value becomes. To take it out of the channel because of quality deterioration means that someone must lose money, and in many cases that individual or company may be under-financed and operating on a very slim margin of profit, and may not be willing to take a loss.

Far too many times in the fishing industry quantity determines quality. Also, quality seems to increase as the price decreases. Perhaps an explanation is needed. When supplies of fish at the wholesale level are abundant and the buyer has a choice of purchases, his standard for quality is high and only top grade fish are acceptable. On the other hand, when the fish are in demand and only limited quantities are available, the buyer's standard for quality

may drop. In some cases the buyer is forced into this position because of the threat of losing his supply of fish.

It has been said that a food product of any quality, as long as it is edible, can be sold if the price is low enough. Thus, fish and other food products which should never reach the public are kept in the channel of distribution rather than discarded. As long as such conditions exist in the fishing industry there can be no assurance that the consumer will receive consistently high quality fishery products.

It would be ideal if all individuals in the fishing industry were so reliable and so quality-conscious that only top quality products were handled. Under these conditions no inspection of any kind would be required. Of course, it is completely unrealistic to even imagine such a situation. The next step, therefore, is obvious. If quality is to be assured to the consumer, some form of inspection by an unbiased individual is necessary. This individual or third party could be supplied by a private inspection company, by a city, county, or State agency or by the Federal Government. Another possibility is for the industry to develop its own regulations and police them. This has been done in the case of certain canned fishery products inspected by the National Canners Association. But it would appear to be a much more difficult task with a perishable product such as fresh or frozen fish produced by an industry composed of many small firms.

If it is assumed that the Federal Government can best handle inspection of fishery products and develop standards and specifications on a national basis in order to insure uniformity throughout the United States, then the question to be asked is whether the inspection should be voluntary or mandatory.

Without attempting to give a personal or Bureau position, I would like to handle this subject by generally discussing both mandatory and voluntary inspection and then listing and discussing the advantages and disadvantages of each.

HOW MANDATORY INSPECTION WOULD WORK

A complete mandatory program would provide Government inspection of all domestically-produced fishery products designated for movement in interstate or foreign commerce or even in intrastate commerce to designated major consuming areas. Such a program would also apply to fishery products imported into the United States.

Legislation would be required to implement a mandatory inspection program. The principal areas to be covered by legislation include: (1) establishment of standards of identity for fishery products, (2) establishment of minimum standards of quality and wholesomeness, (3) inspection of fishery plants and products, (4) condemnation and destruction of unsuitable raw materials and products intended for interstate commerce or large consuming areas, and (5) imposition of fines and other penalties for violations.

The law would be implemented by developing regulations which would spell out details such as specific plant and product requirements, exemptions, use of inspection symbols, use of food additives, product labeling requirements, penalties for violations, and other appropriate details.

The Government would pay for all costs of inspection, except overtime and holiday work, which would be borne by the processor. To reduce costs

and conserve manpower, a patrol inspector system of daily visits would be used in areas where there are several small plants or where operations are only seasonal.

Imported products, after entry into the United States would be treated as domestic products and be subject to the provisions of United States regulations. These products would be inspected prior to release to the consignee. Inspection would be on a lot basis and would include on-the-spot examinations plus evaluation by a support laboratory.

Inspection of imported products would present many problems but it is believed most of these problems could be handled.

HOW VOLUNTARY INSPECTION WORKS

The U.S. Department of the Interior (USDI) presently makes available a voluntary official inspection service for all types of processed fishery products. Inspection of any fishery product is available to any applicant who has a financial interest in the product. The service is voluntary, offered on a fee-for-service basis. Under this program, inspectors examine the product and issue a certificate stating its quality, quantity, and condition or other pertinent findings which affect the marketability of the product. The certification may be based on the official USDI Grade Standards which are available for 14 fishery products, on Federal and State specifications, or on specifications written by the buyer or seller.

Essentially there are three different types of services available; continuous inspection, lot inspection, and unofficial sample inspection.

Continuous Inspection

Under continuous inspection one or more inspectors are assigned to a processing plant, at all times when it is operating, for the purpose of making continuous checks on the preparation, processing, and packing operations. This service is made available only if the plant meets rigid sanitary requirements for facilities, equipment, and raw materials.

Products packed in any plant operated under the continuous inspection program, and in compliance with USDI inspection regulations, may be labeled with the official USDI inspection marks. Either the shield with the statement "Packed Under Continuous Inspection of the U.S. Department of the Interior" or the "U.S. Grade A" shield may be used.

Lot Inspection

Inspection may be requested on specific lots of fishery products in which the applicant has a financial interest. The lots can be of any size, and located in processing plants, warehouses, cold storage plants, or terminal markets.

The inspector checks the condition of the containers, draws a prescribed number of representative samples from the lot, depending on the size, and examines the product. Results of the inspection are reported on an official certificate and cover the entire lot of product from which the samples were drawn. Lot inspected products may not be labeled with the shield.

Unofficial Sample Inspection

This type of service allows the applicant to select his own samples and submit them to the nearest inspection office for examination. However, inspection certificates issued on this type of examination show only the quality or condition of the submitted samples and do not refer to the quality of

the lot from which the samples were taken. Inspection based on unofficial samples gives no assurance that the samples accurately represent the entire lot.

As indicated earlier, voluntary inspection is available to financially interested parties on a fee-for-service basis. Fees are assessed at specific rates designed to cover the cost of the service, as nearly as possible, as required by the Agricultural Marketing Act under which the voluntary program operates. For continuous inspection, which is provided on a contract basis, the present rate is \$5.55 per hour per man. Annually, this amounts to about \$11,500 per year per man. For lot inspection and unofficial sample inspection, the rate is \$7.80 per hour.

ADVANTAGES AND DISADVANTAGES OF MANDATORY AND VOLUNTARY INSPECTION

Mandatory and voluntary inspection are used with varying degrees of success on a number of foods. When their use is considered for fishery products certain advantages and disadvantages become apparent. These may be summarized as follows:

The Case for Mandatory Inspection

ADVANTAGES

1. All plants and products inspected.
2. Uniform minimum quality.
3. Uniform regulations for processors.
4. No cost to processors.
5. Closer inspection of imports.

DISADVANTAGES

1. Only minimum quality required.
2. Costly improvements necessary for some plants.
3. More Government participation required.
4. Government cost high.

ADVANTAGES

Under a mandatory inspection system, all domestic fishery products would be subject to inspection regardless of the size of the plant. All products produced would be a minimum but acceptable quality level at the time they leave the processing plant. Since products of questionable quality could not be handled, fishermen would be required to bring in good quality fish and processors would be prevented from handling fishery products that are not of acceptable quality. Also, since poor quality products could not be injected into the channels of distribution, the price depressing effect of poor quality fish would be limited.

All plants would be subject to the same regulations and would have the inspection service available to them regardless of their size, location, or financial situation.

In order for full benefits of mandatory inspection to be realized, closer inspection of imported fishery products would be necessary. Since at least one-half of our edible seafood in the United States is imported, it will be necessary to control the quality of foreign products if we are to assure the housewife that all seafood offered for sale is of acceptable quality.

DISADVANTAGES

The cost of mandatory inspection would be high, not only for the Government but for many plants. A requirement to furnish inspection services for all plants no matter how small or how remote and scattered would require a large inspection force supported by the Government. At the same time, many

plants may find that they cannot meet the required sanitation standards without extensive remodeling of facilities and equipment. In fact, it is reasonable to assume that many plants will find it impossible to operate without rebuilding, and in some cases this would not be possible because of lack of adequate finances.

The Case for Voluntary Inspection

ADVANTAGES

1. High quality officially recognized.
2. Products can be graded.
3. Continuous in-plant quality control.
4. Grade and shield provides promotional advantage.
5. No mandatory control by Government.

DISADVANTAGES

1. Costly to processor.
2. All products not inspected so poor products continue to find markets.
3. Only larger plants can economically obtain continuous inspection.
4. Erratic quality in the market place.

ADVANTAGES

Although under a mandatory inspection system a product of minimum quality is assured, there is no requirement to reach the high level of quality which many processors have as their goal. Under the voluntary inspection system there is an incentive to produce high-quality products.

Under voluntary inspection, grades and shields of the inspecting agency can be carried on the product to assure the consumer of the quality she is purchasing. Properly used, this system could give participating processors a definite promotional advantage.

Continuous inspection under the voluntary system requires that an inspector be in the plant whenever the inspected product is being run. It has been demonstrated many times that the inspector can be an asset to the plant in a number of ways in addition to his inspection duties.

DISADVANTAGES

One of the principal disadvantages of voluntary inspection is that all plants cannot afford it. In large plants having a high volume of production, the cost per pound of product inspected is small. On the other hand, a plant with a relatively small output may find the inspection cost substantial and possibly prohibitive. Attempts to find a solution to this problem which will be acceptable to everyone have not been successful. The chances of having all domestic fishery products inspected under the voluntary inspection system are remote.

THE CHOICE WE MUST MAKE

It is evident from the points covered that neither inspection system is perfect; the fault does not lie solely with the systems. One of the problems is that we are working with a product that is different from other food products. It is an excellent high protein food that is virtually unexcelled from a standpoint of vitamins, essential amino acids, and trace minerals, but it is a sensitive food that needs special care in handling. There are probably no other foods that are in such jeopardy of distrust and elimination from the housewife's shopping list as fish and shellfish products. By some means we must find a way to put seafoods in the same position of trust and confidence in the eyes of consumers that meat and poultry now enjoy. They have gained this position

as a result of the restrictions on handling from the time animals are slaughtered until the final product is in the hands of the consumer. But the problems with fish are much more complex. First of all, unlike the meat and poultry industry, we must find a way of controlling the quality of substantial quantities of imported fishery products as well as those we are producing ourselves. Secondly, the scattered nature of our fish processing industry makes our position even more difficult. But answers must be found if fishery products are to gain a position commensurate with their value as a food for the American public. Many individuals are convinced that the answers lie in a nationwide inspection system.

The Atom Preserves Seafoods

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INTRODUCTION

ON JULY 7, 1965 history was made in the seafood industry when the United States Atomic Energy Commission submitted to the United States Food and Drug Administration a petition to permit the commercial use of radiation-pasteurized cod, haddock, pollock, flounder, and sole. Approval of the petition is necessary because the Food and Drug Administration considers radiation from radioisotopes to be a food additive.

We are optimistic that approval will be granted because use of radiation for the sterilization of bacon, deinfestation of grain, and sprout inhibition of potatoes has already been authorized. If granted, approval will, in a sense, mark the beginning of a revolution in the food industry because it will be the first time that food pasteurized by ionizing radiation will be available to the public. Fishery products never before obtainable in the fresh-like state in interior parts of the country will be available on a regular basis.

The following is a very brief review of the history of the radiation preservation of foods and a discussion of highlights of some of the work that has been done on seafood.

Following Roentgen's discovery of X-rays in the last century and Becquerel's discovery of radioactivity, scientists exploited the properties of ionizing radiation to investigate their effects on biological materials (1). It was not long before it was discovered that these radiations could kill bacteria, insects, and higher forms of life.

Early Research

In 1930, a French patent was granted for the use of ionizing radiation for the preservation of foods (16). This appears to be the first known attempt to establish a process for preserving foods based upon the capacity of ionizing radiation to destroy bacteria. However, little was done with this method, and for some years major applications consisted of medical use for diagnostic and therapeutic purposes. Extensive work on the use of radiation to preserve foods

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