

Institute of Food Technologists Public Information Program

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by

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My subject is not directly concerned with the science and technology of food, but with peoples attitudes about food and about the science and technology of food. My interest in this subject comes from participation in the Institute of Food Technologists (IFT) program on public information. Ideally a social psychologist should be talking about the origin and significance of peoples attitudes about a subject. However, none of the voluntary participants in this program are social psychologists; we are all Food Scientists.

About 5 years ago, there was extensive newspaper coverage about food additives in the U.S. The abrupt prohibition of use of cyclamate in U.S. foods was reported world wide and was followed by prohibition of use in many other countries. This action raised the question of how a chemical compound that was thought to be safe in fact was declared to be safe by responsible authorities-still was prohibited from use under the law. Such a ruling seemed arbitrary and was confusing to responsible people. They began to question the system under which food additives are recognized as safe, and they began to have doubts about the safety of food.

Other incidents have occurred since this time. An interesting case is that of diethyl stilbesterol (DES) an artificial hormone that is mixed with cattle feed to increase the feed efficiency of beef production. This substance is a known carcinogen, as are most steroid hormones, and consequently should not appear in meat. The problem was solved by feeding cattle DES free

feed at least one week prior to slaughter. This solution worked until our ability to detect DES increased, and amounts in the 1-2 ppb range began to be detected in some livers of animals slaughtered. Then under the law the USDA acted to ban the use of DES. A counter suit was filed in court by the cattle feeders that the action to ban DES itself was illegal. As a result of legal technicalities that I do not understand, DES is still being used in cattle feed in the U.S. So, in this particular instance, the scientific aspects of the situation were less important than the legal aspects.

Also prominent in the news at this time was the appearance of mercury in fish. It became apparent after study that two situations existed: 1) fish or shell fish could accumulate large quantities of Hg which if the fish were used as food, would be toxic to people (as a result of industrial pollution) and 2) fish contained a low but measurable amount of Hg as a result of their normal environment. Consequently, in the U.S., a level of 0.5 ppm was set as the maximum allowable level. Other countries set higher limits of 1-2 ppm, and as a result, fish which couldn't meet the standard in the U.S. were shipped to other countries. Some deplore this practice saying that we are contributing to the poor health of other people. They think automatically that the lower limit is the safer limit. Actually, there is always a second question involved-whether the waste of the resource is balanced by the degree of safety sought. We cannot continue to make very stringent rules, and there by deprive

ourselves of readily available food which also contributes to our health and well being.

In addition to the newspaper articles, many books were written about the food supply, and most of them were critical. The unfavorable publicity about the regularly available food supply led people to make increasing use of so called "health" foods and vitamin pills. People became doubtful of the safety, nutritive value, and economic value of regularly used foods.

In 1971-72 under the leadership of Dr. Richard Hall (then the president of IFT), a Public Information Program was initiated by IFT with the purpose of providing accurate information about the safety and hazards of the food supply in the United States. The organization for this program is shown in Fig. 1.

There are three groups of people with different responsibilities in the organization. The Expert Panel on Food Safety and Nutrition consists of 12 to 15 university professors who are responsible for choosing the subjects and writing the text of the Scientific Status Summaries.

The Committee on Public Information is composed of 12 to 15 food industry executives and scientists. The purpose of this group is two fold: 1) to offer advice on the best methods of distributing information to the press and to the public and 2) to rewrite the scientific status summary in terms suitable for the press and laymen in general.

During our last meeting, the second function of the Committee on Public Information was eliminated. We found that the press didn't appreciate it when they learned there were two forms of the source information available, and they were receiving the watered down or easy to understand version often without the original literature references.

The third group of people is the Regional Communicators. It is to this group that I belong. There are approximately 20 of us, and our responsibility is to distribute by as much personal contact as possible the scientific status summaries to the press and to make ourselves available to the press and to radio and television for answering questions about food nutrition and food safety.

The director for the program was hired about one year ago. His name is Howard Mattson, and he works

with all three groups to assist them in doing their jobs. More specifically he writes press releases that accompany the distribution of each Scientific Status Summary. He chooses appropriate articles from the journal "Food Technology" and has these distributed to the press with press releases. Furthermore, he calls the attention of the Regional Communicators to sources of information other than those generated by IFT and makes them available to us if possible. These include government publications and information from special agencies such as the "International Glutamate Technical Committee".

The main source of information generated by this program has been the Scientific Status Summary. These summaries are 2-4 pages in length, are usually accompanied by a bibliography, and are meant to be background information that the press will file and hold. Then if a news story breaks about some aspect of the food industry, hopefully the newspaper reporter or editor will be able to balance what is happening or what is reported to be happening with some good factual information. The subjects on which Scientific Status Summaries have been completed and distributed to the press are in Table 1.

The Public Information Program has been operating for about 2½ years. It is admittedly a pilot program. Our 20 Regional Communicators can't begin to have personal contact with the editors of all of the newspapers in the U.S. And the members of the Expert Panel, Committee on Public Information and Regional Communicators are all volunteers with their regular jobs to perform. The only paid member working full time on the program is the Director. Even with this limited program, the resources IFT can devote to it cannot easily be increased. The cost now is about \$50,000 per year and the major question facing us is the financing for a larger and more effective program.

Having described the program, I now want to give my impressions of the effectiveness of the program and the difficulties we face. Most importantly, it is a worth while effort that needs to be continued and strengthened if possible. There will always be the tendency in the press to emphasize the strangeness or bizarre aspects of a story including the things that tend to frighten people-this, in a way, is the definition

of news. Still, this has to be balanced by true information about the situation which may be less news worthy but more reassuring. As I talk with newspaper editors, I find them to be very responsible and happy to have the information IFT supplies in the form of Scientific Status Summaries. The editors frequently inquire about the source of funding for the program, and they worry about the food industry putting out information to divert attention from a bad situation. Newspapers cover a broad range of topics, in limited space and with very severe time deadlines. Hence, their ability to understand all ramifications of a subject and their ability to find mistakes in written copy is limited.

Of the possible professional organizations that could do this public information task, the food technologists seem to be the logical group and so far the only ones with enough initiative to start such a program. Professional societies of nutritionists also have an interest in this problem of public information, but are more interested in education than in the news media. IFT represents the Science and Technology of food and not any special food industry or food product.

In talking to local groups, I find two prevalent attitudes. Either indifference or a concern that the food supply is poor and getting worse. Very few agree with my personal opinion that the food supply is good and getting better. The people who think the safety of food is not as good as it should be are not food faddists or simply trying to generate publicity for themselves. Many are responsible citizens whose concern is genuine. It is this group that the Public Information Program is aimed at.

Some of the Regional Communicators state their case for the food supply in strong advocacy terms. That is, arguing forcefully the benefits without admitting there might be some flaws in the system. I prefer to try to understand the position of those who question the food supply, and by such an understanding, I feel I can better answer the questions they raise. Making some broad generalizations, the doubts that people have about their food can be placed in four categories.

Probably the most pervasive complaint about food is the use of food additives. People worry about the

content of unintentional additives such as agricultural chemicals that may leave a residue in or on crops. The usage instructions are very strict about when, during maturation of a crop, the pesticide can be used. But people make mistakes, and a constant monitoring is needed to insure safe food. People worry even more about intentional food additives. The intentional food additives include flavors, colors, vitamins, minerals, acids, bases, buffers, emulsifying agents, stabilizing agents, curing agents, humectants and desiccants. The consumer advocate says these things are for cosmetic purposes and have no real purpose in food. They say that all the consumer wants from the food industry is nutrition, cleanliness and safety. Actually the consumer demands much more than this without knowing it the consumer demands that food should look, smell, taste and feel like a traditional food. And the manufacturer who can do the best job of providing these demands will sell the most food. This is why additives are used. The production of a food and repeated sales of it are better criteria of what people want than some abstract principle. Of course the food must be safe, clean and nutritious-but it needs to be more than that.

A second worry for consumers is the lack of information on the package about what is contained in the food. We have in the United States Standards of Identity for certain foods which means that the ingredients for such a food are fixed by Law and consequently the ingredients do not have to be listed on the label. Such foods as bread, ice cream and mayonnaise fall in this category. Closely associated with this worry, is the fear of the names of chemical compounds. When they are told what is in a food, even a natural, nonmanufactured food, many consumers are afraid to eat it. A national television news commentator summed up this feeling recently by saying "I shouldn't have to eat something I can't pronounce". To overcome this lack of information, we have started to use what is known as Nutritional Labeling in the United States. It is a complicated and costly system requiring food manufacturers who make nutritional claims for their products to label the amounts of protein, carbohydrate, fat and 8 vitamins and minerals in their food products. The system legally goes into

effect Jan. 1, 1975 but many companies have started to use it already.

The problem of fear of chemical names will be more difficult to combat. Names of very simple inorganic compounds are viewed with alarm by people who know very little chemistry. Things like calcium sulfate, or sodium dihydrogen phosphate, or ethylene diamine tetra acetic acid are a worry to people sometimes just because the names are long and unfamiliar. This fear can only be overcome if people have faith in the regulatory control of food. We can not hope to make each citizen knowledgeable enough about chemistry to understand the significance and meaning of names for chemical compounds.

The third reason consumers have for distrusting their food is the idea that our food supply at one time was quite good. Then man became involved in it, and the result has been a worsening of the food. Recently, the Food and Drug Administration released information on the guidelines they use for filth in food. For example, how many insect fragments are allowed in different kinds of canned and frozen foods or how many rat hairs in wheat flour. This kind of information greatly disturbed some people who had the idea that the food starts pure and simple and that man by his manipulation of it causes the contamination with filth. Similarly with sausage products or various emulsified and cured meats, some people object when they find that less desirable parts of the animal such as organs are used in these products. My reply to these kinds of objections is that grains and fruits and vegetables have always been stored for short times before consumption, and during that storage or even during harvest there is always the chance of contamination with filth. We know what our best harvesting, storing, and grading can do with respect to amounts of contamination. The level achieved presents no health hazard and is acceptable to people who don't know about it. Once they learn about the concept of a certain amount of filth in food, they become alarmed. We undoubtedly can do a better and better job of eliminating filth, but we will never get to zero contamination, and what will be gained by the extra effort? The most immediate effect will be an increase in the price of food, and are people willing to pay for

the psychological effect of lowering contamination? We could also stop producing sausages with organ meats, but that would cause the price of other meat to increase and cause a problem of conversion to animal feed of the organs. An easier solution is for these who object to organ meats in sausage to avoid eating sausage.

The fourth and final general reason for people distrusting food is the fear of being cheated economically. People hear about tomato flavor used to replace tomatoes or cheese flavor used to replace cheese as ingredients in food, and they are fearful the manufacturer is selling them something cheaper and inferior at the same price. This is something that does need to be policed by regulatory agencies-but it is also the means where by our food supply is continually improved. That is, if tomatoes are used in a product only for flavor or cheese is used only for flavor, then using something cheaper (the flavor ingredient only), makes sense. Competition among companies and government regulation will limit excess profits. A continual decrease in the amount of disposable income spent for food is a good indication that consumers are not being hurt economically by food companies.

In conclusion, I will make a comment about the importance of this kind of Public Information Program to Korea. Since the kinds of regulatory actions taken in the United States are often followed by similar action in other countries, it is of importance that what is done in the United States truly protects the safety and well being of the people. If the action taken is hasty and ill-advised, then people in other countries as well as the U.S. will be less well off. Our program of public information is meant to minimize the chances that ill-advised action based on misinformed public pressure will occur.

Should Korea have a similar type program? My guess is that you already do. It probably is not formalized to the extent of the IFT program, and you may not have Scientific Status Summaries, but I am certain you have responsible leaders who are continually making their views known. This process helps to counter the fears and mistrust that people may develop about food.

Table 1. Subjects of the IFT Scientific Status Summaries

Botulism
Organic Foods
Nitrates, Nitrites and Nitrosamines
Shelf Life of Food
Mercury in Food
Phthalates
Carrageenan

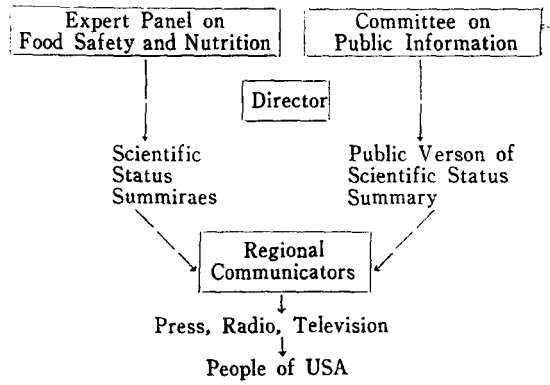


Fig. 1. Organization of the IFT Public Information Program.