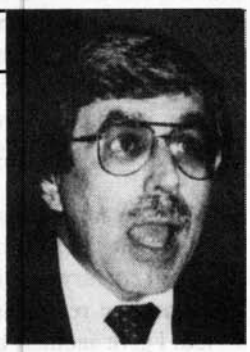
Interview: Theodore Labuza



Food irradiation would greatly benefit Latin America

Mr. Labuza, the president of the California-based Institute for Food Technologies, was interviewed in Bogotá, Colombia, in December 1988. The interview, conducted by Javier Almario, was kindly made available to EIR *by the editors of* 21st Century Science & Technology.

Q: You said that the communications media are not covering the food technology process in an appropriate way. Do you consider the campaigns against nitrates and food irradiation as nonsense?

Labuza: You know, the media need to sell their products, and articles about how safe the food supply is, don't get great reviews versus an article that says here is a problem. Articles about problems are more readable articles. What we are trying to do, through the Institute for Food Technologies, and through a communicators program, is to supply to the media background information, so that, when something comes up . . . for example, when somebody gives a speech and says that when you eat irradiated food, you'll become radioactive and die, we hope that the media would have some other well-documented background scientific material, so that when they write an article on that person talking about that, maybe they will also present a different viewpoint based on what the scientist thinks about that area. We are not trying to say that the media should not write the article. What we want is that if someone is talking about the murderous food industry, the media also report some scientific facts that probably that person does not know.

Q: Do you think food irradiation is safe?

Labuza: Yes, absolutely. Food irradiation is very safe for the purposes that have been approved, that is, the low-dose radiation for extending the shelf life of fruits and vegetables, which would be a major benefit to Latin American countries, which produce many fruits which decay very rapidly. If these fruits are irradiated, [the Latin American countries] can transport them and sell them in foreign countries, and get some balances of trade. Irradiation of spices is safe. It is done in the United States. In fact, that helps to make other foods safer. The irradiated spices are not the spices people use at home, but the ones used at the industrial level. There, the major concern is that many spices, the way they are grown and harvested, especially in the tropics, are highly contaminated with a lot of spoiling bacteria. And if you try to make a food with that spoiling bacteria, in the process of making food commercially, you have a potential that the food may spoil faster, and the potential for food poisoning. Now we can offer, the spice industry can offer, to the food-processing industry sources of spices that are free of micro-organisms.

Those are the two major areas in which that technology has been approved. The third area is for reduction of trichinae in pork. In the United States, the U.S. Department of Agriculture does not inspect hogs for trichinosis. They rely on the consumer cooking the food up to certain temperatures that kill the trichinae, or freezing the pork which makes it dryer and tougher. With irradiation, you can cook pork to a rare temperature and have a juicier product, not a dry product. Again, the level of radiation is low. . . .

Q: What is the future of that technology in the U.S. ?

Labuza: Of irradiation technology? I think the future of that technology in the U.S. is dead.

Q: Why?

Labuza: Because there are too many activities that are against that technology. There is a coalition against food irradiation. This is one of the strongest activist groups. They are totally opposed to food irradiation because they think that if they eat irradiated food, they will become radioactive and die. So, they trick the supermarkets who are trying to sell irradiated fruits, for example, and they scare the consumers. Whenever a company has proposed to put a food irradiation facility—if you build a new facility, of course, you have to go to the local government and get permission to build a building and you present your plans—then the coalition group goes to the town council meetings and makes the point that now you have radioactivity in your garden, and tells the people of the neighborhood that the facility is going to explode like Three Mile Island. That opinion, of course, is wrong. They argue that at some point, you have to transport the radiation source to the facility, and there are some possibilities that an accident could happen, and the environment would be contaminated.

One example of this was the National Food Association,

which is a national laboratory sponsored by the food companies. One of its laboratories is out in California. About a year and a half ago, they wanted to build a test radiation facility there so that they could make studies for the food companies, and the local government did not allow them to do that, because those kinds of stories were being told.

Q: Why do Americans believe more in these hysterical activists than in the scientists? Is not the United States the most advanced country in science and technology?

Labuza: The reason is human nature. The way it is presented. I give another, better reason: the level of understanding of science, and there are a lot of studies that have been published, the level of understanding of science by young children, people in high schools, adults, has dramatically gone down over the last 20 years. That is because less and less science and less and less mathematics have been taught in the elementary schools and the high schools. If one does not have the feeling for the understanding of science, one cannot consider science as a help for mankind. Instead one considers science as something strange, something that is unknown, something that is scary; unless you have a background in science, it's easy to be scared of that kind of technology. I am afraid for the United States from that standpoint. Scientists will have a very hard time convincing people of some kinds of new technology and the directions we would like to go into.

Q: What is happening with U.S. education?

Labuza: I don't know. I don't think education schools are teaching teachers to be science teachers. We have to revive education. Somebody should start teaching teachers. There is a tremendous math hysteria. People have an aversity to math. I have met some secretaries to whom I can show simply how to use a calculator and they become afraid of using that calculator, and in order to divide, they prefer dividing by hand and don't understand what I am doing. Our education system needs a kind of boost. I think the National Science Foundation has recently gotten some money from Congress to try to put science and math teaching back in schools. We should begin in elementary schools. If we put science and math only at the high school level, when we try to teach them they will have become phobic to mathematics. By the time they will be in high school, they will not like to learn mathematics.

If we are talking about food technologies, I think the people in the activist groups, and in the media, who deal with that, don't have the science background. They think that food technology is only a matter of cooking and they think that adding some chemicals to food is only economics and not basic science. That is part of our problem and the Institute for Food Technology is getting the people in Washington to understand that food science is a science. It was recently that food science has been considered in the list of the U.S. Department of Agriculture. The problem of education is severe and we only are going to solve it in about 10 years if we begin our efforts now.

Q: What is the role that food technology could have to solve the problems that the severe drought the U.S. and other countries have suffered?

Labuza: In the short term there is nothing that science and food technology could do to solve the drought. The short-term solution is to try to get the raw materials for food industries from another part of the world. The second thing we can do, and we are doing it in the U.S.A., we have done a lot of research in that area, is the engineering or whatever it is called, is to design and study the storage facilities of commodity articles like grains, building the proper kind of silos, so that you can store grains for longer periods of time, so that in periods of shortage you will have the grain available for the market place.

The third area of research, and probably the most exciting, which will not solve the problems of this specific drought, but will increase the ability to grow plants in areas where there is less rainfall, is genetic engineering and hydrometrical manipulation of plants to make them drought resistant and be able to grow in areas or in periods in which they could not grow before. There is some work on that in Israel and in Arizona where plants have been developed that can grow in desert areas. You can virtually convert that area into a plantation and the plants can grow with less water. I think that is the kind of thing we are going to need.

Q: Why do you think food irradiation has better prospects in South American countries, like Colombia, than in the U.S.A.?

Labuza: Well, you still don't have the kind of activist groups opposed to that technology that we have in the United States, and you should take advantage of that.

Q: What is the cost of a food irradiation facility?

Labuza: I do not know what the cost is. The cost is not much higher, let us say, than putting up a [medical] sterilization plant. The key thing is that the demand for fresh products is going up, fruits and vegetables, and people are willing to pay a premium price. For example, in Minneapolis in winter time you will probably pay a dollar for a kiwi from New Zealand. In California we also grow kiwis, and near the end of the harvest season you can buy 12 kiwis for a dollar. But they are not of the quality of the kiwis from New Zealand. People are willing to pay extra for exotic fruits if they have good quality. If you pick up papayas and mangos, by the time they reach the supermarkets in the United States, depending on what part of the United States, the quality is very poor, the flavor is not there, because of damage, rotting, mold, spoiling, or whatever. Irradiation, low doses of radiation, will slow down that process, extending shelf life and making these kinds of exotic fruits available in many markets. People want to be able to take the product home, espe-

cially in developed countries, and put it in a refrigerator. They are not going to eat it the next day because they shop once a week or whatever, so they want it to have a longer shelf life once the food gets into the home. That means 40-45 days of shelf life from the time of harvesting to the consumer. One of the best examples of that, even in the United States, is strawberries. You pick strawberries, you put them in a basket and put them in a refrigerator, and in three days, the basket is moldy. A small dose of radiation makes them last for about three weeks. Then you have something that the consumers are willing to pay for. . . .

Q: Do you think there is an artificial interest among these groups against science?

Labuza: Oh yes. There are a lot of groups against science. There are a number of groups in the United States that feel and think that we have to go back to the old ways, that science is degrading our moral philosophy, adding poison to food, and we are going to die, that science is producing cancer. They tend to forget to look at the statistics and look at what mankind ate in the old days, and the fact that they lived maybe 35-40 years, and that they died so much of food poisoning. You know, when you give them those numbers they just ignore them. When you are an anti-science person it is easy to ignore whatever you want to ignore and only believe what you want to believe in. And I think that is one of our real problems.

Q: What do they want? A new Dark Age?

Labuza: Ha, ha. I think so. I think so.

A beneficial technology poisoned by the anti-nukes

There seems to be no end to the lies the anti-nuclear movement invents about food irradiation—and the numbers of people who will fall for them.

The propaganda has reached new depths of deception in New Jersey, a state that has pioneered in the development of low-level irradiation to kill insects and bacteria. If New Jersey legislators do not stop the proposed two-year moratorium on food irradiation, the Garden State will go on record opposing science and supporting the lies of the well-funded anti=nuclear movement. The moratorium was an ill-conceived compromise proposed by the State Health Department. Although the department itself has ruled irradiated foods to be safe and wholesome, it feared that without such a compromise the anti-nuclear lobby would succeed in achieving a permanent ban on the technology.

The professional anti-nuclear activists in New Jersey have no concern for truth. Typical of their propaganda is a leaflet against food irradiation adorned with a cartoon of a wicked witch, saying, "Eat it my pretty little guinea pig," as she force feeds children. Various leaflets suggest that irradiated food will "poison" people, that it is a plot on the part of greedy industrialists, that animals and people have been harmed by eating it.

Using the logic of the anti-food-irradiation lobby, which claims that "unique radiolytic products" are produced by irradiation, the New Jersey state legislature should also ban cooked foods as well as canned foods (which are heat processed), because the radiolytic products found are the same in all cases!

The antinukes have had their arguments refuted time after time by scientists and state and federal agencies. In the Dec. 30 *Federal Register,* the Food and Drug Administration published a detailed rebuttal to every objection raised to the FDA's ruling that permits food irradiation use for fresh pork, disinfestation of produce, and growth inhibition (such as sprouts in onions). The FDA denied requests for hearings on these objections, stating after a review of each objection, "A hearing will not be granted on the basis of mere allegations or general descriptions of positions and contentions."

Food irradiation is the most researched food process in man's history. The studies began during World War II, when researchers were looking for ways to supply battlefield troops with wholesome, tasty food. Today, more than 40 years of research and thousands of studies later, the technology has the full weight of the international scientific community attesting to the safety and wholesomeness of the product.

Food irradiation at low doses can prolong the shelf life of fruits and vegetables, kill the parasitical trichina worm in pork and the bacteria salmonella in chicken, disinfest fruits and grains after harvest, and delay sprouting in potatoes and onions. At higher doses, irradiation can sterilize foods, enabling them to be stored at room-temperature indefinitely. (This is what astronauts eat in space.)

Although the United States has led the world in pioneering the research, it now lags behind in the use of the technology. While the relatively affluent U.S. consumer can continue the luxury of believing environmentalist propaganda, reason must prevail in developing countries, which have starving or semi-starving populations and crop losses of up to 60%.

It is not too late for New Jersey to wake up. All it will take is one or two legislators who are more worried about the disease, starvation, and grinding poverty that accompany a new dark age, than they are about votes from the environmentalist lobby.—*Marjorie Mazel Hecht*