HIGHLIGHTS OF SOME FOOD CONTROL ACTIVITIES OF THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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I have learned a great deal during my first few months as an Assistant Secretary of Health, Education and Welfare, a great many new facts about a lot of fascinating and important subjects. For example, as a newcomer to your field, I have been especially impressed with the meticulous attention paid to every drop of a fluid I have taken for granted from my first day of life. Apparently, this opalescent liquid does not merely flow from a cow into a bottle as, I suspect, many millions of my fellow Americans think it does.

I now know that before it reaches my lips, every single individual drop of milk has been strained . . . filtered . . . pasteurized . . . homogenized . . . weighed . . . cooled . . . heated . . . pumped . . . held . . . agitated . . . clarified . . . separated (from what, I haven’t found out) . . . stored . . . restored . . . transported . . . and retransported. This is, no doubt, far from a complete odyssey of the trials, tribulations and travels of this wonderful natural food. And to think that I have drunk milk every day of my life with only a faint suspicion of what it has been put through by you gentlemen.

As fascinated as I am by my new knowledge of the milk industry, I shall not attempt to discuss it with you at length, realizing that to all of you this would be merely “old stuff.” I cannot resist, however, expressing my own amazement at the comprehensiveness and thoroughness of the work of your group in dealing — not only with every aspect of the product itself — but with every person and every item of equipment which, in any way, come into contact with your product on its long but rapid journey from the cow to the customer.

I wish that every consumer of milk — which means, I hope, every person in this great nation — could know what you dairy-industry and public health men do to protect the sources, the contacts, and the distribution of this important food. Far from being satisfied that you are now delivering the best milk that can possibly be provided, countless professional, commercial, and governmental organizations and individuals are devoting millions of man-hours, hundreds of thousands of dollars, and inestimable brainpower to the proposition that milk can be made even better, tastier, safer, cheaper, more useful, and more nutritious than it is today.

Each of you can take justifiable pride, I believe, in the progress you have made toward assuring that milk — perhaps the one food most necessary for proper health and growth — and the products derived from milk, are both as wholesome as modern technology can make them and as accessible to all as possible.

I have been particularly impressed, may I say, by the record of the Public Health Service in the field of milk sanitation. Its long history of close collaboration with the industries and others concerned, all of whom are represented in this room, has worked to the great advantage of the American people as a whole.

A comparatively recent, but very logical, extension of the Public Health Service’s traditional role in the cooperative improvement of dairy processing and marketing is its participation in the Interstate Milk Shippers Certification Program. This program as you know, uses the model Milk Ordinance and Code of the Public Health Service as its basic standard.

As I understand it, the purpose of this program is to provide a satisfactory basis for the acceptance of milk shipped across State boundaries, and thus to eliminate the need for multiple inspections of sources of milk by health authorities. This, in turn, yields three significant benefits: First, it helps to move milk from areas of high supply to areas of low supply. Second, it helps to move milk more rapidly from the point of origin to the point of utilization. And third, it helps to prevent the use of pseudo-health regulations as artificial trade barriers, thus removing a costly nuisance to industry and an unjustifiable expense to the consumer.

As a new bureaucrat in Washington, I am also pleased to note that Public Health Service participation in the Interstate Certification Program was specifically invited by the parties most directly concerned, the industries and the State and local governments.

During the brief existence of the Interstate Milk Shippers Certification Program, the Public Health Service has, I understand, consistently maintained its traditional role of trusted reporter and friendly arbiter. The Division of Sanitary Engineering Ser-

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FOOD CONTROL ACTIVITIES

Both the Food and Drug Administration and the Public Health Service of the Department of Health, Education, and Welfare are following current developments in this field closely, including the studies being conducted under the auspices of the Quartermaster Food and Container Institute of the Armed Forces. We are, of course, interested in any possible application of ionizing radiation as a new means for the processing and preservation of foods. We are equally interested in learning whether processing with ionizing radiation will affect the nutritional value of the food, impart any unfavorable qualities, or otherwise produce deleterious effects.

There is no doubt now that sterility in food products can be achieved through use of ionizing radiations. Current studies include milk, meat, fish products, vegetables, and spices, all of which have been successfully sterilized by this method of treatment. The results in some instances, such as in the case of potatoes, look very promising, but in most instances, undesirable changes have occurred in the product itself. As an example, milk has been successfully pasteurized by comparatively low doses of high-energy cathode rays. However, milk and milk products appear to be extremely sensitive to ionizing radiations, and such treatment has usually provided undesirable flavor and odor characteristics.

Other potential applications of this new force in which the Department naturally takes an interest are the cold sterilization of drugs and biologicals which are adversely affected by heat, and the sterilization of human blood and of various human tissues for transplanting from one person to another. Considerable progress has been made along these lines. May I say that the Food and Drug Administration stands ready at all times to consult with any manufacturer who contemplates the use of ionizing radiation in the commercial processing of foods or drugs.

We do know, by the way, that insects are relatively sensitive to ionizing radiations. They can be killed by comparatively low doses, and their reproduction can be prevented by even lower doses. I have been especially interested to learn that the elimination of insect infestation in grain by ionizing radiations may well become economically feasible.

Much additional research needs to be done, of course, before widespread use of ionizing radiations becomes a practical commercial reality in the food industries. Many questions still remain to be resolved. But if we compare what is known today about radiation sterilization of foods with what was known only five years ago, it is obvious that considerable progress has been made and that many of the problems I have...
mentioned will, no doubt, be mastered in the near future.

More immediate progress is being made in other milk and milk products research and development projects. Our Department takes great pride in the contributions being made in this important field by the new Robert A. Taft Sanitary Engineering Center in Cincinnati, Ohio, which was dedicated by Mrs. Hobby just one year ago. This modern facility, which absorbed the old Environmental Health Center, is well equipped and has been especially designed to undertake research on environmental sanitation problems.

In this connection, I would like to tell you about several specific research projects which have been under way for some time.

First, many of you know that we have been concerned with the possibility that Q-fever can be transmitted to man through the consumption of milk from cattle infected with this disease. Because of this, several years ago, the Public Health Service set up a cooperative research project with the University of California to determine the thermal death curve of the Q-fever organism, and to determine beyond doubt whether this germ could survive our present methods of commercial pasteurization.

The Dairy Industries Supply Association and the Milk Industry Foundation, I should like to add, have assisted us immeasurably with technical guidance and material aid in the course of this project.

The Q-fever study is now in its final stages. In fact, the laboratory data are now undergoing statistical analysis, and field testing is in progress to confirm the results. I can assure you that the dairy industry will be given the fullest possible report at the earliest possible date—which will certainly be within the near future.

Another of our research interests over the past several years has been the investigation of new pasteurization processes. Through the Public Health Service and industry-sponsored research, we have been able to evaluate the adequacy of several of the new processes. We plan to release our recommendations soon regarding processes which heat milk and milk products to 192° F., with a minimum holding time of one second. During the last month, our advisory board accepted this method of processing as equivalent to present methods of pasteurization, subject to the installation of automatic controls which would insure proper functioning of the equipment.

I note with interest that consideration of a sanitary standard for bulk-milk dispensers appears on the agenda for this meeting. The press has reported also that the wider use of milk-dispensing devices is being advocated as a means of increasing milk consumption. It may be of interest to many of you that the Public Health Service, almost 20 years ago, recognized that the use of these dispensers was practical, with proper safeguards for the public health. This may, therefore, be a fitting point at which to recall the words of Henry David Thoreau to the effect that "Things do not change; we change."

One other research finding that will be of interest to you concerns the use of quaternary ammonium compounds for the bactericidal treatment of dairy equipment. As you know, these compounds have properties which lend themselves to this usage. A few years ago, however, the investigators at our Cincinnati laboratory discovered the disconcerting fact that the normal mineral constituents of some water supplies interfered with the bactericidal efficiency of these compounds.

In view of this, it became necessary for State and local health officials to test a quaternary ammonium bactericide with each water supply, in order to be sure of its effectiveness. But now, more research on this problem, with the assistance of chemical manufacturers, has shown that it is possible to modify the QAC formulations to make them usable in most waters. This change probably will be included in the next printing of the Milk Ordinance and Code which we are trying to get into print in the next 90 days.

I have referred to these research reports not only because of their technical interest to you, but also to underscore two facts. The first is that, whether we labor on the Government or the industry side of the fence, we must keep ourselves alert concerning the necessary and proper safeguards surrounding the production, processing and distribution of milk, and we must constantly reevaluate our control procedures in the light of newer knowledge. The second thought I should like to leave with you today is that the Department of Health, Education, and Welfare is well aware that the milk industry is dynamic and that milk technology is subject to constant improvement.

We always stand ready, as you do, to evaluate promising new developments quickly and to support and promote vigorously those that are in the public interest.