

It is well known that dairy products such as cheese have been the source of typhoid epidemics and of tuberculosis. As a help in preventing such diseases, the Food and Drug regulations require that cheese either be stored for a minimum period of sixty days if it is not either pasteurized or made from pasteurized milk. There have been difficulties in stopping the sale of fresh cheese made from unpasteurized milk.

There are other problems in the health area connected with the manufacture of dairy products. Efforts of the Food and Drug Directorate, with the assistance of provincial departments, have succeeded in attaining a very marked improvement in the sanitation and housekeeping of factories but there remains the problem of unsatisfactory milk brought to these processing plants. Samples of individual farmer's milk have shown that a significant number are still supplying milk of a very low standard.

Changes in methods of marketing foods in the past fifteen years have led to an increase in the use and the number of chemical additives used in foods. The present world food supply does not appear to be adequate in amount for everyone and better ways of preserving, storing and transporting foods are needed; losses caused by insects and blight must be decreased; and 'convenience' foods are more in demand. All these factors require the use of chemical additives in the form of preservatives, antimicrobial agents, fungicides, insecticides, emulsifiers, colours, and other processing agents. While these are useful and even necessary, the safety of the foods to which they are added becomes a matter of great importance. This is the concern of the Food and Drug Directorate.

The principles on which the administrative policy is based are: (1) the use of the additive must contribute something of value to the consumer; (2) the amounts of the substance used must be well below the level at which even slight harmful effects can be observed; (3) there must be no deception or fraud as a result of the use of the substance; (4) there must be a quantitative method of determining the substance in the food; and (5) a maximum level (or tolerance) is established for the substance in or on foods which is well below the maximum safe level.

In order to put these criteria into effect, the manufacturer is required to submit all information about his product that will make possible sound decisions. This information is carefully reviewed by a team of scientists and medical men and when a tolerance is decided on the regulations are changed to permit the use of the substance in the manner proposed.

Another subject of importance is the bacteriology of frozen foods—particularly foods already cooked and requiring only warming before use. Surveys of these products have been made and a close watch is kept to prevent any seriously contaminated foods of this kind reaching the consumer. Storage temperatures during transport and at the retail level are important factors to be considered.

Much time is spent in 'policing' the market for fraudulent practices. Detection of fraud and collecting evidence that will stand up in court is a matter that requires sharpness and ingenuity of both inspectors and analysts. A typical example was the detection of the adulteration of olive oil with rapeseed oil. Because the standard for olive oil could not be specific enough to exclude some other vegetable oils, one manufacturer took advantage of the situation to add considerable quantities of rapeseed oil to his so-called pure olive oil. While standard tests aroused suspicion they were not adequate to produce legal evidence that would convict. Only when erucic acid was separated from the adulterated oil by molecular distillation was it possible to be sure. A rapid method was then developed by means of infrared spectroscopy to detect the differences between pure olive oil and adulterated olive oil. The adulteration of butter with vegetable oils has also been detected by means of the spectrophotometer and the presence of substances not found in pure butter. Many other problems are of a continuing nature, such as adulteration of meat products and failure of foods to meet the standards provided.