

# THE RESPONSIBILITY OF THE DAIRY INDUSTRY TO THE CONSUMER<sup>1</sup>

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Serving the best interests of the consumer is the responsibility of industry and of regulatory officials. This requires that both be adaptable to change; have a long-range point of view; and concentrate on problems of the future rather than those of the past. Emphasis is needed on fundamentals in milk quality and sanitation; increasing consumer appeal; and continual increase in efficiency of dairy production.

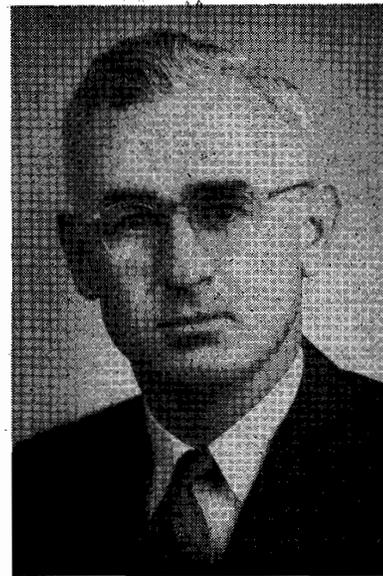
If the responsibility of the processors and distributors of milk and dairy products can be reduced to a single paragraph it might well be expressed somewhat as follows:

The job of the dairy industry is to solve present and future problems in the best interests of the consumer. This means recognizing and evaluating the profound changes that are taking place in the dairy industry, in all agriculture, and throughout the economy. It means developing the capacity to influence as well as to adapt to these changes. Especially it means looking to the future with a long-range point of view.

The dairy industry has come a long way in the United States. Both the industry and regulatory agencies can be proud of the many accomplishments. A great dairy industry has been built that can amply meet the present and foreseeable consumer demands for healthful, high quality milk and dairy products. The great achievements in quality and sanitation have given consumers full confidence in all dairy products. Much credit is due the efforts and foresight of the industry, the medical profession, regulatory officials, and agricultural colleges.

Yet there are still many problems, and the future promises to bring even more. Industry must take the lead in solving these problems. Regulatory agencies must help. The responsibility and objectives of industry and regulatory authorities have a wide area of common ground. This area can be even broader. A key objective of both groups should be to expand their joint efforts to serve the consumer and not merely to conform to rules and regulations.

As a background to discussing a few of the problems and objectives of the dairy industry, perhaps brief



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consideration should be given to two factors that demand prime attention in today's planning. These are the matter of change and of having a long-range point of view.

There have been many editorial and news references to the tremendous pace and importance of change in recent years. For example, Earl L. Butz, former Assistant Secretary of Agriculture, recently stated (9) that "A scientific explosion is occurring in our midst."

C. F. Huffman, President of American Dairy Science Association, told the 1957 annual meeting of that organization (4) that agricultural colleges have "failed to realize that science and agriculture are changing so rapidly that our concepts of education are having a hard time to keep up with the signs of the times."

A recent editorial in the *American Milk Review* (6) stated "There is a deep, fundamental current of

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change sweeping through the dairy industry. The change is primarily a product of people and the way in which they work. On the one hand are the new markets and the new types of markets that have evolved as the nation has grown. On the other hand are the dislocations and adjustments created by new knowledge and new technology. Fewer cows and fewer farmers are producing more and more milk. Fewer plants are distributing more and more milk over wider areas than ever before."

"... The status quo cannot be preserved. He who would oppose change because it is change or because it disturbs his own private world must share with the impatient radical the responsibility for the turmoil that results. Time cannot be made to stand still nor can it be made to move faster. The great task facing the industry is to grow with the times, logically, soundly, fairly."

The necessity of bold planning for the future has been ably discussed by Ralph J. Cordiner, President of General Electric Co. Mr. Cordiner said that new imperatives are at work today which give the business leader, and others, no practical alternative except to take a long-range point of view. These imperatives include:

1. Pressures of a changing population. In 10 years U. S. consumers are expected to want 40 per cent more goods and services, to be produced by only 14 per cent more workers. This means productivity must be increased by forward-looking technological improvements.

2. The decision of the American people that steadily rising levels of living, plus economic stability, are both desirable and achievable. (Dairy farmers and their families expect to participate in this increase in the standard of living.)

3. The forceful pace of technological change, and the rise of research and innovation as established techniques of competitive business enterprise. Few substantial businesses today can expect to grow without a dynamic plan for continuous innovations in processes, facilities, methods, organization, leadership, and other phases of the business (2).

It is most important for the dairy industry and for regulatory officials to have this long-range point of view and to concentrate on problems of the future rather than those of the past.

In the discussion which follows, consideration will be given to three of the objectives of the dairy industry. It is believed that these objectives should be shared by official sanitarians:

1. Emphasis on fundamentals in milk quality and sanitation.

2. Increasing consumer appeal.
3. Continual increase in efficiency of dairy production.

#### EMPHASIS ON FUNDAMENTALS

Enforcement of sanitary milk regulations has greatly improved milk quality and safety, and encouraged higher per capita consumption. Official supervision of the production of milk and milk products is in the public interest and is a necessary function of government. The record in this field is too successful to warrant abrupt or drastic changes, and none are suggested here.

However, in recent years many people have questioned the public health significance and necessity of certain sanitary regulatory items (10).

It is believed that it is time to re-examine the elaborate structure of milk sanitation regulations and control. The public health must be safeguarded, but this duty should not be pursued with reckless disregard for the consumer's pocketbook. The emphasis should be on specifications for herd health and quality standards as measured by objective tests (12).

Milk sanitarians are familiar with the report of the National Research Council on Sanitary Milk Control (3). This report indicates the need for only a limited number of basic requirements to insure a wholesome milk supply. The report concludes that more emphasis should be placed on three groups of requirements with respect to facilities and practices which are significant in the production of sanitary milk. "These essential features of sanitary milk production on farms are:

1. "Healthy cows and other factors reducing possibility of presence of pathogenic bacteria, such as fly control, potable water, and sewage disposal."
2. "Clean utensils given proper bactericidal treatment. This condition was associated with clean cows, clean milking barns, and clean milk houses provided with hot water and two-compartment wash vats."
3. "Prompt cooling of milk to 50° F. or below which was always accomplished by electric refrigeration, except that milk to be pasteurized promptly after production need not be cooled."

"Good production practices and essential facilities should be the goal and most particulars of structure and design should be recommendations and not requirements of the sanitary laws. Such emphasis on the important factors of milk sanitation would maintain and improve the measurable quality attributes of

milk while reducing the number of requirements which tend to harass dairymen and to restrict the movement of milk between producing areas and new market areas."

This report also states that "There is no public health reason to increase the severity of satisfactory sanitary milk regulations, making them more detailed and rigid, when the milk industry of any market regularly complies with them. This applies to the regulations affecting milk production, processing, and distribution as well as to the standards for the quality of milk."

After a lengthy investigation, a U. S. Senate Committee reported in 1951 (1): "Unfortunately many local health ordinances have been adopted that go beyond the need for protection of the public. The design and operation of some indicate a desire to protect the status quo of producers or distributors as much as, if not more than, the public health. A system of trade barriers has grown up in the milk industry that has retarded the free flow of milk both intrastate and interstate."

Fortunately, much attention has been devoted by industry and regulatory agencies to the fundamentals of milk sanitation and to what can be done to facilitate the free flow of high quality milk. Progress has been made, but a great deal more work is needed in this field by both groups. It should be the objective of industry and regulatory officials to provide consumers with milk and dairy products, having all the characteristics that make them desired as food, at a reasonable price and with a minimum of rules and regulations.

#### INCREASING CONSUMER APPEAL

The dairy industry and regulatory agencies can be proud of the role they have played in improving the nutrition of the nation. Not only has milk-borne disease been largely eliminated, but there are many positive indications of improved nutritional health of the people. Dairy foods have done more than any other group of foods to improve the nutrition and well-being of the population. These products have been particularly important in increasing the intake of calcium, vitamin D, and high quality protein.

A dramatic example of the value of milk and dairy products was given recently by Dr. A. A. Weech of Children's Hospital, University of Cincinnati (13). Dr. Weech discussed the contribution to human welfare of the fortification of milk with vitamin D. He stated that today it is difficult to find a case of rickets, and most graduating medical students have

never seen one. He further stated, ". . . It is perhaps rash to attribute the miracle of the disappearance of rickets to any single commodity. I am not alone, however, in holding the belief that the widespread practice of fortifying milk with vitamin D has been the most important factor. This viewpoint has been ably supported by the Council on Foods and Nutrition of the American Medical Association . . . at the time of the last tabulation in February, 1955, there were listed 340 different brands of evaporated milk in this country, all of them fortified with vitamin D. The opinion seems justified that this almost universal fortification of evaporated milk has done more than has anything else to eradicate rickets in the very segment of the population least liable to avail themselves of what we may call the newer knowledge of nutrition."

However, it is widely recognized that milk consumption in the United States falls well below the amount recommended by nutritionists. Therefore, a major objective of the dairy industry and of milk sanitarians should be to encourage ways of increasing consumer appeal and expanding consumption to levels more nearly in line with nutritional needs.

Keeping prices as low as possible will help do this. Studies have shown that per capita sales of milk tend to increase with a decrease in price and that people with low and medium incomes tend to make more use of low-priced milk than those in the high income groups (1).

Another way to encourage higher consumption of milk and dairy products is for the dairy industry and regulatory agencies to stress the positive attributes of the products and to build these up, rather than the negative aspect of freedom from disease-producing organisms. This means emphasis on food value, cleanliness, flavor, keeping-quality and composition. People drink milk because they like it and for its nutritional value. Attention should be directed to the value of the product itself and to improving the product, rather than appealing to the fear complex by reference to "safety" which implies near escape from some hazard. The dairy industry and sanitarians inform the public that they have escaped illness caused by milk when its safety and protective measures are emphasized (8).

Certainly, every practical effort must be made to insure the safety of milk and dairy products. However, this problem has been largely solved through adequate pasteurization and other processes, plus protection of the finished product from contamination.

In this connection it may be well to remind ourselves that pasteurization is still the one positive

safeguard for a milk supply. In spite of all the refinements in regulations and inspection of milk production, it is impossible to depend on the human element. The one dependable safety measure is adequate pasteurization and protection of the pasteurized product (7). This is a strong argument against burdening the price of milk with unnecessary detail and frills in farm production controls, when the maximum in impractical and costly regulations still will not give positive protection without pasteurization.

However, more can be done to improve the flavor and keeping-quality of milk. The increase that has occurred in the time between production and consumption makes this particularly important for fluid milk. With the farm tank and alternate day pick-up, outer-market sales, and intermittent delivery to stores and consumers, it is not uncommon for well over a week to elapse from the time milk leaves the cow until the pasteurized product is consumed. This necessitates more and more attention to clean production methods, clean milk handling equipment, enzymatic action and other chemical changes, adequate refrigeration on the farm and in the plant, and clean plant equipment. The complete sanitation of all post-pasteurization equipment is of prime importance to keeping-quality as well as to the safety of the milk.

#### CONTINUAL INCREASE IN EFFICIENCY OF DAIRY PRODUCTION

Another major objective of the dairy industry is continual increase in efficiency. Sanitarians must help achieve this objective. While the necessity of ever increasing efficiency applies to all phases of production, processing, and distribution, this discussion is directed to dairy farm production.

In considering the importance of increasing efficiency of milk production it is necessary to recognize some of the changes that are taking place, and are expected in the future, in agriculture as a whole, as well as in all of industry. It is no longer news to mention the great increase in industrial productivity in this country. Productivity in the United States has been increasing about 2 per cent a year for nearly a century. However, the editors of *Fortune* have predicted that in the next quarter-century it will probably increase at an average of 3 per cent a year. If this extra percentage point materializes, it will have a profound effect on the economy, for production per man-hour will double in less than 24 years.

Productivity has increased rapidly in recent years in certain branches of agriculture. Efficiency in dairy farming has lagged behind, but fortunately it is beginning to catch up. The means are available for

greatly improving the efficiency of dairy production. It is up to the dairy industry to see that they are applied. Regulatory officials and sanitarians must not impede this progress. From here on the economics of the problem must be considered. Will the farmer's and the consumer's pocketbooks stand the recommendation or requirement? While farming is a way of life, it is also a business. It must be a sound business.

During the next 20 years, American agriculture is expected to be called upon to increase its output by some 30 to 40 per cent on approximately the same amount of land as is in use today, and with fewer farm workers. Population is expected to increase about 35 per cent to some 220,000,000. Also economists foresee a doubling of the nation's total economy with an increase in per capita income of some 60 per cent.

The necessity of increasing the efficiency of milk production has been well expressed by Professor Herrell DeGraff of Cornell University (5):

"A small herd of mediocre dairy cows can no longer produce a net income that is appealing to large numbers of families compared to what they can earn at alternative employment. This will be even more true in the future than it is now."

"A hard and fundamental fact that has not been properly recognized in the present politically inspired yapping about agriculture, is that a farm family can produce, from agriculture, a comparable level of living with non-farm families only by steadily increasing their volume of output — per hour, per day, per year."

The following statement from Professor W. E. Petersen of the University of Minnesota is particularly applicable to this problem (11):

"Dairying is in for the greatest revolutionary change in its entire history. The objective is an enormous increase in efficiency — the measure of which is to be the pounds of milk per acre and pounds of milk per man-hour. We have the technological and practical knowledge that will enable us, on the average, to double the milk produced per acre and increase by four times the amount of milk produced per man-hour. In addition to this increase in efficiency we shall give more attention to making the job more attractive to the worker and we shall raise some serious questions about control measures now enforced as to whether or not they contribute or hinder advance toward the objective of furnishing consumers with the best quality product to serve their best interests."

"To attain these objectives we must have better cows, make greater use of roughage, mechanize the dairy farm, and above all have an open mind toward new developments."

This discussion is not meant to infer that only large commercial dairy farms can survive. Dairy production is largely a function of the family farm and probably will continue to be so. Small herds are still profitable in some sections of the country where the farm operation is diversified or where the farmer has some outside employment. However, regardless of the size of the herd, more and more efficiency is necessary in the production, storage and feeding of forage; in the housing, feeding, milking and management of the dairy herd; and in the handling of the milk. This efficiency is in the interest of the consumer because it will increase the production of milk; decrease the cost; help promote consumption of milk and dairy products; and will contribute to the nutritional health of the people.

Before concluding, it should be pointed out that sanitarians and industry must plan for the future with full regard to the effect of regulations and control measures, and all of their activities, on the competitive position of the dairy industry. There is a limit to the food intake of the consumer and to his expenditures for food. Numerous other foods compete directly with milk and dairy products. Moreover, every commodity and service in the economy competes for the consumer's dollar.

Butter has lost half of its per capita market in the past 20 years. Vegetable oil products are a significant factor in the frozen desserts picture. Filled milk has made large gains. Vegetable protein products are on the market as dairy substitutes. The early feeding of solid foods, containing no milk or dairy products, to infants has decreased their milk intake. Such foods are also gaining importance in geriatrics and in the feeding of invalids.

The future of the dairy industry is bright but it is not guaranteed. A constructive attitude and cooperative effort by all concerned will bring success.

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