A PLAN OF OFFICIALLY SUPERVISED INDUSTRY DAIRY FARM INSPECTION*

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The author suggests a different approach to the dairy farm inspection problem. The merits of the conventional method used by many state and municipal departments of health are weighed. An effort is made to define the responsibilities of the official control agency and to correlate these with the responsibilities of the milk distributor operating under the licensing privilege granted by the Department of Health. It is recommended that the direct supervision of the supply be left to the Health Department responsible for the milk supply where the major portion of the milk is consumed. The author holds that the most effective results in the enforcement of dairy farm requirements will be attained when departments of health transfer the major portion of the inspection burden to the milk industry itself. The major health consideration in the metropolitan area, that of preventing milk borne disease, can best be accomplished by intensifying efforts extended in the supervision of the pasteurizing process itself and in the application of safeguards necessary to prevent subsequent contamination.

The last decade has witnessed a constant improvement in the methods and practices employed in supervising and conducting inspections of dairy farms producing milk for pasteurization. As dairy farm after dairy farm was electrified and supplied with motor vehicles for work and pleasure, the lantern, the kitchen, range, the thunder mug, and old dobbin went into the discard. They were replaced by the farm tractor, the milking machine, the mechanical cooler, running water, and a bath room in the house. Improvements in transportation, highways, and rural education brought all kinds of electric and gas-driven appliances to the farm. In less than a generation the environment of most of our better dairy farms had undergone a tremendous change.

There has followed, in a much shorter span of time, marked improvement in the health and vigor of our dairy cattle through the elimination of tuberculosis and other diseases and the inauguration of effective disease control measures, wherever necessary.

Higher production per cow and more assurance of stabilization of milk prices through marketing orders have had the effect of fostering an increased interest in dairy farming as a livelihood and have stimulated a demand upon the part of the dairy farmer for up to date knowledge concerning better methods to be used in milk production.

INSPECTION NECESSARY

In the industry today there is a clear understanding of the value of periodic contacts between the milk buyer and the milk producer. Everywhere there is a rapidly growing realization that the greatest improvement in quality of milk and cream for the immediate future will be attained by assisting and teaching the producer and by actually demonstrating to producer groups sound, as well as sanitary, methods of milk production.

The job of assisting the milk producer, of teaching, guiding, planning, and demonstrating better methods of producing, economically, increasing volumes of high quality milk under good sanitary conditions is the job of the industry milk sanitary. He must be charged with and expected to assume all of the responsibilities, both industry and health, and be held accountable for producer compliance with all of the sanitary requirements applicable to safety and quality of milk prior to pasteurization.

Obviously the sanitary assigned to supervise the production of milk, by the various patrons comprising a supply, must be a person of good character, trained by school and experience to carry on dairy farm inspection and supervision in a capable and efficient manner. His qualification and character are of the essence.

No official recognition of industry milk sanitation inspection reports should be granted unless Certification of the sanitarian's qualifications have been received from the health department exercising jurisdiction. Health departments in receiving milk sheds should under all circumstances reserve the right to suspend such Certificates for cause.

It is unimportant whether the sanitary be employed by the milk buyer or the health department. To promote efficiency, to effect economy, and to avoid duplication and misunderstanding, the sanitarian must be prepared and willing to work for and to represent both. He must expect supervision and guidance from the buyer as well as from the health departments in the milk sheds where the milk is consumed.

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Whether health department or industry employed, the work of the milk sanitary, charged with the responsibility of making the routine producer contacts upon a given supply, must be constantly supervised by the health officer in whose jurisdiction the major portion of the supply is consumed regularly throughout the year.

CHANGING CONDITIONS

Our view of farm inspection today is no longer obscured by the fog and uncertainty of what lies ahead. The hazards lurking in unpasteurized milk are well recognized. We have had time to evaluate the safety conferred upon our milk supplies by proper pasteurization. The phosphatase test furnishes us further assurance as to safety of the milk supply. We have a clearer conception of our goal and what must be done to attain it. The essential requirements to be met in producing a clean and wholesome milk supply are becoming well understood. With this understanding has come a greater degree of uniformity in enforcement procedures.

The early concept of milk inspection contemplated routine visits, by health department personnel, of all dairy farms and milk processing plants. This concept came about at a time when much of the milk supply of the country was delivered direct by rail to the large centers of population and consumed raw. Health departments came to recognize a potential health menace in the milk supply from every dairy farm.

In an endeavor to prevent milk-borne disease it was considered necessary for the health department to assume full responsibility of examining into the sanitary conditions surrounding the production of milk at every farm.

During the years that have followed, many changes in handling and transportation of milk have occurred. Investigations in the field of science have furnished much information with respect to the effect of environment and concerning the etiology of milk-borne disease and the transmission of certain infections from animal to man.

The almost universal practice of pasteurizing milk, together with the improvements in methods of pasteurization, have been responsible for the marked reduction in milk-borne epidemic disease throughout the country. Today milk and dairy products are comparatively insignificant sources of illness, when compared with some of our other foods.

Much of the credit for improving the quality of our public milk supplies belongs to the milk distributor. The dairy industry has been a potent factor and a staunch ally of the health officer in the battle to make milk safe. The tremendous reduction in the incidence of milk-borne disease and in the elimination of thousands of deaths in infants attributed to summer complaint, is evidence that the fight has been won.

The effect of sanitary milk production practices in bringing about improvement in milk quality and the need for more effective methods of pasteurizing milk were recognized more than a quarter of a century ago. During this period many new milk ordinances and milk sanitation laws were placed on the statute books. Cleanliness and protection of milk during and after production were emphasized and pasteurization of a maximum volume of our milk supply encouraged, under the direct supervision of the health authorities. Even at that time many health authorities recognized that safety in pasteurized milk could be attained by constant supervision of the pasteurization process to assure that the required treatment was being applied and that subsequent contamination was prevented. The greatest benefit of dairy inspection in the advancement of public health was attained by steadfastly adhering to these principles.

The major function of a board of health of any community is to keep unsafe milk out of the stores and off the door step of the consumer. Health authorities need not concern themselves with the relative merits of two obviously safe and accepted grades of pasteurized milk; such matters belong principally to the field of economics.

For safety of its milk supplies, the community should concern itself with the hazards existing in raw milk, if unpasteurized milk is available and permitted to be sold for human consumption. What is needed is a law barring the sale of unpasteurized milk. The community should be more concerned with the ice cream supply, to assure effective pasteurization of the ice cream mix prior to freezing and with the practices followed in preparing and handling uncurdled soft cheese, preparing milk drinks, and other special products.

Along with the clearer conception of the problem and the more recent developments in milk sanitation, it seems quite unnecessary, in order to preserve safety of the public milk supplies, for the health officer to continue to shoulder the greater part of the burden and expense involved in supervising country milk supplies, later to be pasteurized in the city under the health officer's immediate supervision.

RESPONSIBILITY OF INDUSTRY

A plan to be preferred would be to pass on to industry that portion of the milk inspection burden most costly and difficult for the city or state health officer to administer. The health officer has every right to demand that the licensed milk distributor assume full responsibility for the development of a high quality milk supply. Likewise, he has a right to demand that the buyer assume full responsibility for obtaining a milk supply from dairy farms conforming to local sanitary standards and requirements. In administering requirements governing dairy farm sanitation, it is not the responsibility of the health officer to do the spade work or assume the burden of securing compliance upon the part of the producer. The health officer's responsibility is merely to apply the official supervision and to evaluate the degree of industry effort in terms of compliance effected.

Since the health hazards involved in milk, to be pasteurized, before sale, are well understood and considered not nearly as grave as those resulting, either from the consumption of unpasteurized raw milk or failure to exercise effective supervision of the pasteurizing process itself, it would seem right and proper to inaugurate such a procedure. Where this procedure is followed, the effect has been to give industry a share in the responsibility and to stimulate industry interest in the common problem.
It is obvious that competition in the milk business compels constant improvement in milk quality. Competing milk companies cannot and must maintain their customers, and add new ones, where quality defects, readily detectable to the consumer, exist. The consumer will quickly discriminate against milk with acidified flavors, milk with detectable stable odor, or with weed flavors, and demand a product properly cooled and cared for, rich in milk sugar and free from objectionable conditions.

The enterprising milk distributor has come to recognize these facts well. Because of this he is quite anxious and willing to take on responsibility of examining into the sanitary conditions and the quality of milk produced on the dairy farms supplying his plant. It is therefore a happy arrangement, both for the health officer and for the milk distributor, which requires the dairy farm supplying milk to the milk distributor to submit to an inspection at least semi-annually, by a qualified milk sanitarian who has been licensed or certified by the health officer and who has been employed at industry expense. How else could a milk distributor, licensed by the state, assure himself that sanitary conditions on the dairy farms conform to the minimum requirements of law? What other procedure could be adopted which might be more effective, more economical, or simple to administer and still give assurance of effecting compliance with the law?

For a number of years it had been the practice of some state and local health departments in this country to employ sufficient personnel actually to visit, at least twice a year, and inspect each dairy farm producing milk for pasteurization. In large centers of population this procedure is quite costly and may seriously deplete health department appropriations which might be used otherwise to much better advantage.

The cities and states of densely populated regions along the Atlantic seaboard, where a high percentage of our country milk supply is consumed, are rapidly permitting this practice to go into the discard. This is because, through many years of experience and study of milk problems, health authorities are convinced that both safety and quality can readily be attained without the expenditures of the tremendous effort and public funds heretofore utilized to accomplish this objective. Health authorities have learned what is essential to assure safety. The pasteurizer, plus the application of the phosphatase test are the important instruments here. They have learned what is necessary to assure quality: a cooperative compulsory self inspection of dairy farms utilizing qualified industry inspectors, controlled and closely supervised by a small team of capable and enterprising dairy specialists, employed full time by the health departments.

A number of states and cities still follow the practice of making routine visits of all dairy farms semi-annually, in many cases duplicating visits made by certified or licensed health department industry-employed inspectors. At least one state, Wisconsin, has refused to rate the sanitary quality of one of its most reputable supplies. Notwithstanding the fact that this supply is under the constant supervision of the health department in whose jurisdiction the milk is produced, the producing state insists that the supply, to be eligible for rating, duplicate farm inspections made by the health department representing the people regularly consuming the milk. In order to secure the publication of an official milk sanitation rating necessary to participate in the advantages provided by an Interstate Reciprocal Milk Shipment Agreement, the state health department of the producing state insists that the applicant for the Rating employ the services of the State Department of Agriculture or a municipal health department of the state where the milk is produced for the purpose of subjecting each individual dairy farm to an additional semi-annual inspection, thus duplicating the inspection made under the supervision of the health authorities in the state regularly consuming the milk supply. Situations such as these impose unnecessary and useless burdens upon our milk supplies and seriously interfere with supervision established jointly by milk plants and the health department responsible to the people consuming a major portion of the supply.

It is gratifying to note that the recently revised draft of the Public Health Service Recommended Milk Ordinance and Code recognizes the effectiveness of official supervision of industry dairy farm inspection and provides for its acceptance, if effective official supervision has been established, on an equal basis with the routine semi-annual inspection of each individual dairy farm by the health officer. Unfortunately some of the states importing milk have temporarily refused to accept this recommendation, and continue to insist upon the health officer visiting each individual dairy semi-annually. This procedure necessitates duplication of effort and needless expense. It can be expected that this practice will in the future yield to the more modern and effective plan of self inspection by industry, under continuous and active supervision of full time health department personnel.

A plan, designed to effect the necessary control and inspection service of milk for pasteurization, contemplates from the start, that securing compliance with milk sanitary laws and regulations promulgated by the health department is an obligation which must be assumed by the milk dealer who applies for and receives a health department license to sell milk for human consumption in the immediate area, or normal milk shed, over which the health officer exercises jurisdiction.

Before the initial license may be granted, the health officer exercising jurisdiction in the milk shed where the bulk of the supply is consumed must visit all dairy farms producing the supply in order to ascertain whether the same qualify for the permit applied for, and to issue initial instructions to the management and field department representatives concerning any state or local requirements in force in the area where the bulk of the milk is to be consumed.

Once this phase of the work is completed, the job of maintaining conditions in conformity with existing requirements and affecting improvements, is assigned to the management of the supply producing the milk.
New patrons may be added to the supply only after a satisfactory dairy farm sanitation report has been completed by the industry fieldman and the dairy farm subjected to a final inspection by the health department supervisor.

As assurance that the field department personnel employed by the local plant management is carrying out its duties in a satisfactory manner, the health officer responsible for the supply must assign a trained sanitarian from his department to apply constant supervision of the industry field personnel. The health department supervisor spot checks the dairy farms comprising the several supplies assigned to him, maintains constant contact with the industry quality control laboratory, and assists in the training of industry field men and in the direction of their work. A constant check of quality records, veterinary supervision, and farm inspection reports turned in from day to day is maintained. Special projects helpful in securing quality improvements or to secure compliance with requirements of other markets are inaugurated as necessity demands. The health department supervisor keeps records of milk receipts and shipments, inspects milk as received, and maintains inspection of plant operations and milk processing.

Qualifications of Fieldman

The fieldman assigned to contact the milk producer is no longer permitted to function as the milk solicitor, the part-time plant employee, or the feed or equipment salesman. He must be an inspector, a practical sanitarian, a teacher and a salesman of ideas. The fieldman must have an understanding of the producers' problems, herd health and management, industry and haulers' responsibilities, milk pricing, and above all the value of quality and integrity of dairy products with full realization that the consumer is selective and critical.

The fieldman must be able properly to score a dairy, to interpret conditions found at time of visit upon an inspection report, with full understanding that such scores are not always perfect or even acceptable, but that with proper explanation and with multiple calls, constant improvement may be attained.

Supervised Industry Inspection

He must have a working knowledge in the use of a microscope, and be well informed in methods of sanitation, to be of apt assistance to the producer. The fieldman must understand and be able to explain and demonstrate the necessity of clean practices in milking preparations, milking, utensil handling, and utensil cleaning. He should be able to advise producers in herd health and management, to a degree sufficient to develop a clear understanding upon the part of the producer that economically he is the greatest gainer through increased production and prolonged animal usefulness.

The number of health department employed supervisors required will depend upon the geographic location of the plants in the milk shed, number of dairy farms and plants, and the extent of the area to be supervised. The volume of milk, or dairy products, the sanitary condition of the supply, and the regularity with which a given plant ships to a particular milk shed are all important factors to consider when deciding upon the intensity of supervision to be applied by any particular health department. It would avail little to eliminate duplications of inspections of farms by industry personnel and various health departments and in its place establish a burdensome, full time duplication of supervisory effort upon the same supplies by several different health departments. To avoid this the plan to pursue is to encourage the health department, which exercises jurisdiction over the milk shed where the milk is regularly received and consumed throughout the year, to establish the supervision.

State Inspection for Export

The health officer responsible for the quality and safety of a milk supply which he might find necessary to admit during temporary periods of seasonal shortage from distant plants, far beyond his normal milk shed, has a duty to investigate such supplies before admitting them.

To aid in this undertaking the Public Health Service, in cooperation with state health departments of some of our surplus milk producing states, publishes sanitary ratings computed by state health officers of the shipping state. The information is something that the health officer of the receiving state is now able to use to assist him when admitting, temporarily, unknown supplies from distant points during periods of acute milk shortage within the normal milk shed.

Information of this type should not be permitted to substitute or replace the results and information obtained from supervision as applied in the local milk shed. In this connection the health officer should be mindful of the fact that the sanitary ratings published by the Public Health Service are not Public Health Service computed ratings. In most cases the published ratings have been computed by a state health official. The official is usually an agent of the state exporting the milk. In a number of cases only a very small portion of the rated supply may be consumed normally by the people of the state which computes the rating. Since an acceptable rating is essential to qualify a supply for export under the Interstate Reciprocal Agreement a state official who degrades a supply, not ordinarily consumed in his own state, may expose himself to reprisal locally.

By delegating to the state health officer of the producing state, exclusive authority to compute ratings on milk supplies originating in his state a monopoly is established. The state health officer may elect which supply in his state he cares to rate and which supply he cares to remain unrated. He may make his own requirements concerning the kind of preparations and supervision to be established upon the supply before the rating is undertaken. The state health officer of the producing state may have much to gain at home by announcing favorable ratings on supplies operated by his fellow citizens anxious to enjoy favorable markets available in neighboring states.

Responsibility in Inspection

This situation suggests the advisability of depending on supervision and enforcement upon the health officer exercising jurisdictional superintendence over the health department of the producing state. The health officer should be encouraged to use his discretion in equitably applying the state health law in enforcing the milk laws.
Supervised Industry Inspection

The question of the inspection and supervision of milk supplies is an important one. It is necessary to have a system of inspection and supervision to ensure the safety and quality of milk supplies. In this context, the importance of the health officer in exercising jurisdiction over the supply of milk is emphasized.

In a number of areas throughout the United States, seasonal shortages in milk supplies are not uncommon, and the importation of a given supply of milk is frequently repeated from year to year. The health officer receiving a portion of such supplies temporarily should extend his investigations and cause the importer to furnish additional data concerning this supply. If occasion permits, the health department representative of the milk shed receiving the product temporarily, should visit the supply for the purpose of satisfying himself that ample supervision is being maintained and that there is conformity with sanitary requirements, at least equal to those attained in the milk shed to which shipments are from time to time made. If satisfactory, the supply should be continued and re-visited possibly on an annual basis; if unsatisfactory, the person operating or exporting should be called to account. If importations should be increased to the point where the major portion of the supply would be shipped to the milk shed throughout the year, the responsibility for the local supervision should be assumed by the health authorities exercising jurisdiction in the milk shed where the milk is to be consumed. The supply from time to time might be shipped to milk sheds under other health department jurisdiction. The health officer who permits such shipments should be prepared to accept the supervision formerly established by health authorities of the milk shed where the bulk of the supply is consumed.

In the interest of fostering a greater respect for milk inspection upon the part of the industry and dairymen as well as to effect economy and avoid misunderstanding, the recent practice of a state health department of a shipping state to insist upon a duplicate inspection of supplies going into interstate commerce and to refuse to recognize the inspection and supervision established by the health authorities of the milk shed where the bulk of the supply is normally consumed, should be discontinued.

In the event health authorities of the milk shed receiving the milk do not undertake to supervise the supply, supervision may be established by the health authorities of the producing state. In either event the plant receiving the milk should be required to provide the personnel and assume the responsibility for compliance with the sanitary requirements upon the part of the producer.

All supplies for emergency use moving in interstate commerce, regardless of who supervises them, should be rated annually on an individual basis, by properly qualified and certified rating officials. It would seem that greatest dependence should be placed in ratings computed by qualified and authorized representatives of the Public Health Service. Ratings of out of state milk supplies computed by qualified and authorized representatives of a state or municipal health department responsible for the safety of milk supplies in the state or municipality where the major portion of the milk supply under consideration is consumed, should likewise be considered equally dependable.

NATIONAL CONFERENCE ON TRICHINOSIS

The 2nd National Conference on Trichinosis will be held in the auditorium of the American Medical Association, 539 North Dearborn Street, Chicago, on Monday, March 1, 1954.

The purposes of this conference are to discuss methods of education, problems of human and animal health, and research in relation to control of this disease.

For further information write to S. E. Gould, M. D., Chairman, Continuing Committee on Trichinosis, Wayne County General Hospital, Eloise, Michigan.