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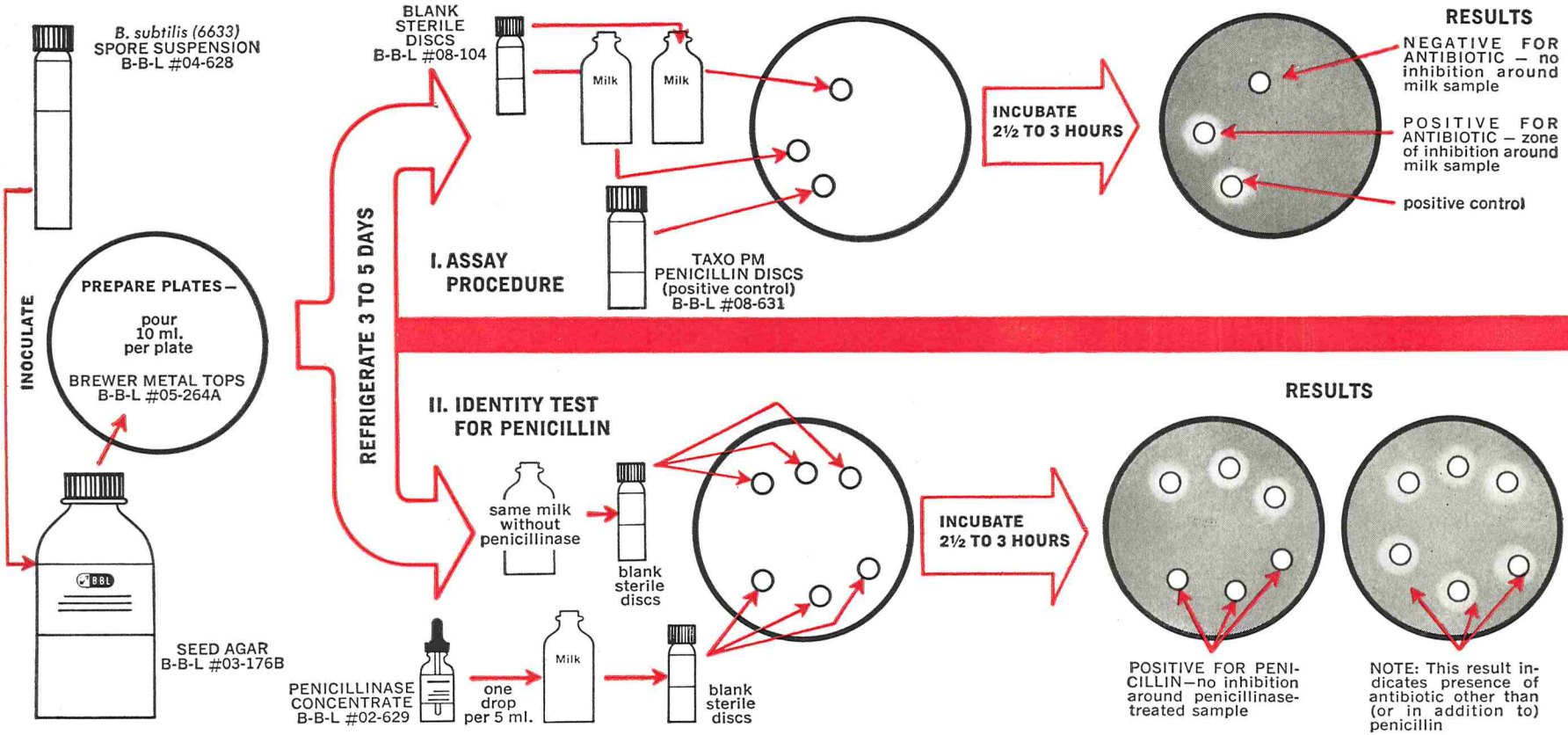
International Association of Milk and Food Sanitarians, Inc.

B·B·L techniCHART

DETECTION OF PENICILLIN IN MILK



The presence of antibiotics in milk following mastitis therapy in cows has created serious public health problems and caused technical difficulties within the dairy industry. A rapid, practical laboratory procedure to assist regulatory agencies and the dairy industry in solving these problems was described by Arret and Kirshbaum.* This procedure employs rapid growth of a sensitive strain of *B. subtilis* for assaying the presence of antibiotics in milk and for determining its identity with penicillin. Inhibition of growth by the presence of as little as 0.05 unit of penicillin per ml. of milk sample is detectable within 2½ hours.

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*Arret, B., and Kirshbaum, A.: J. Milk and Food Technol. **22**:329, 1959.

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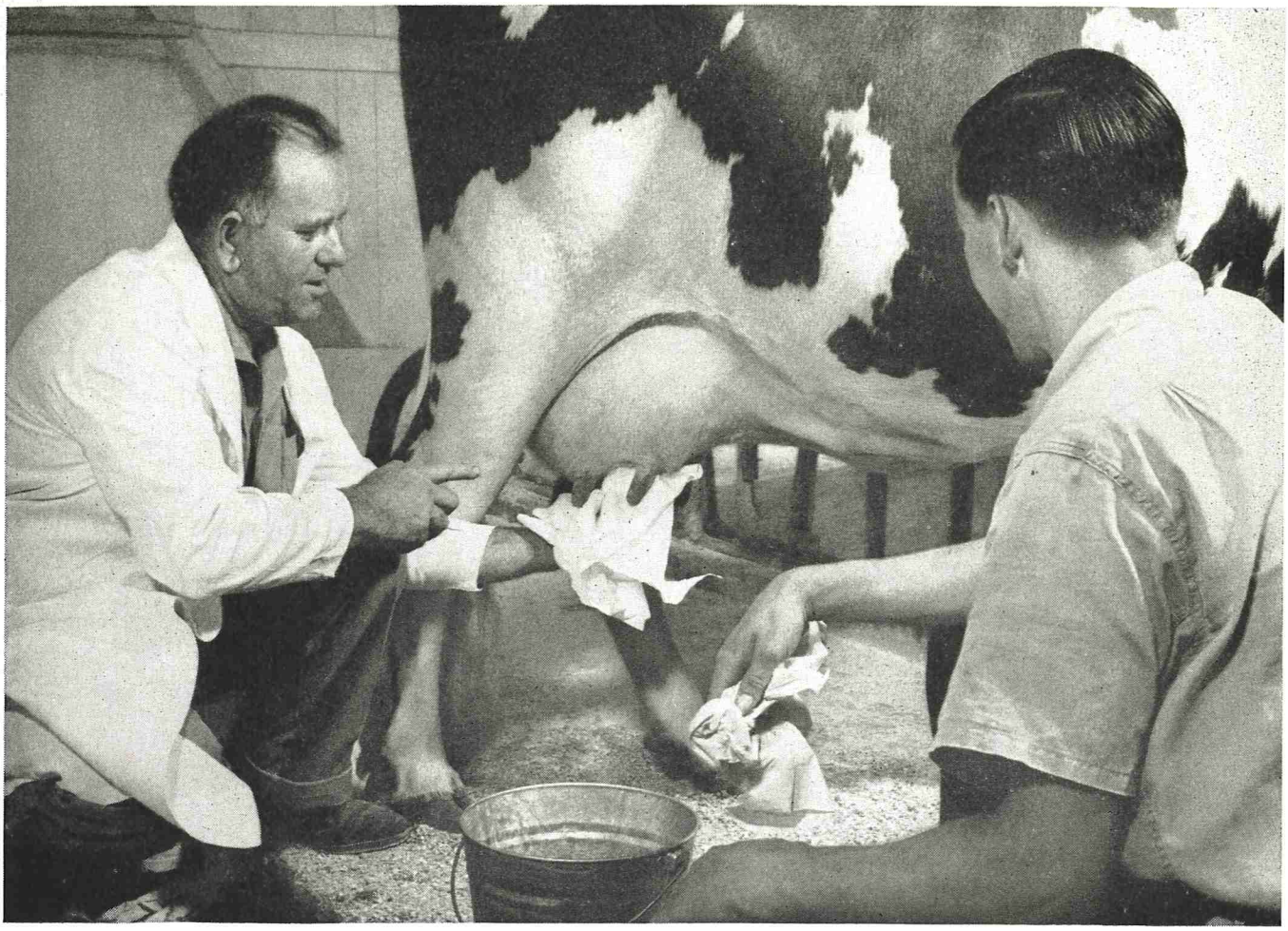

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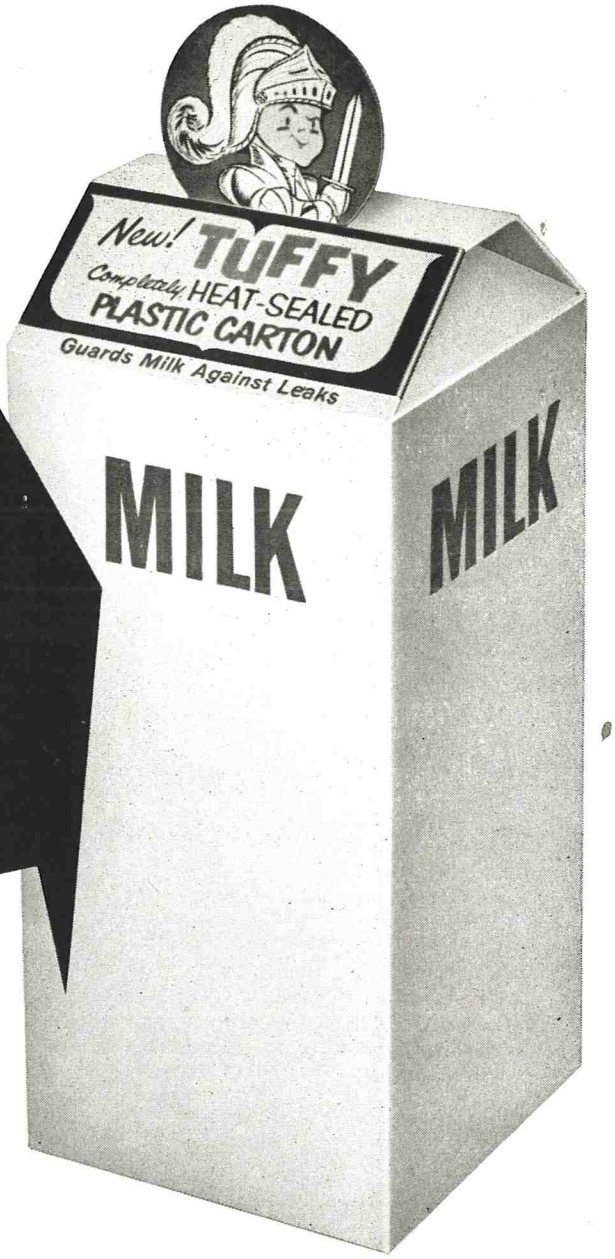

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EDITORIAL

The Annual Meeting

The forthcoming meeting of this Association, to be held in Philadelphia, October 24-27, is the 49th annual meeting. Forty-nine years is quite a noteworthy span, but more important is the record of progress this *Association* has made in these nearly five decades.

Several times, articles of historic interest have been presented in the Journal and there seems no need to be nostalgic now about the Association's past history which is both a proud and worthy one.

Our immediate interest is the 1962 meeting. First, it is quite a long time since we have met in Philadelphia so we are especially glad that this will be the host city this year. It is hoped that many of our eastern members and friends who sometimes find some difficulty in attending in more distant places will be present in large numbers.

Secondly, a few words about how our annual meeting program is put together. Plans for the 1962 meeting were begun immediately after the close of the 1961 meeting. Both by tradition and by specific direction, the President-Elect serves as program committee chairman. It is his assigned task to canvass the field and determine what timely and instructive topics should be presented. Next comes the task of contacting possible speakers who have particular competency in the subject to be discussed. Very soon a large and thick file of correspondence accumulates. Other members of the *Association* and the other officers also give their opinions and suggestions. Sometimes a particular speaker is not available on the date desired and this in turn requires further correspondence and negotiation.

Finally, along with the preparation of the technical program come matters of registration, hotel accommodation, social events, committee meetings, the business meeting and a host of other details all of which form a part of the final product.

This same kind of planning must go on every year because the annual meeting is important to the Association and to its progress.

Those who attend benefit materially by listening to well qualified speakers expound on a wide variety of pertinent subjects. But in addition, the exchange of experiences, ideas and shop talk among those assembled is of inestimable value.

Ours is never a glamour convention. Elaborate entertainment is not provided. Special exhibits and hospitality rooms are not a prominent part of the meeting. By far the great majority of our registrants come to the annual meeting at considerable financial sacrifice because in our field of endeavor the unlimited expense account is just not in the cards.

The program committee hopes every year that this will be the best meeting ever, and we all hope 1962 will fall in that category. We are sure it will. The best compliment the Committee and the Association can have is good attendance. But more important, you the member, derive the greatest benefit and you do yourself and your department or company a service by being present.

If you haven't yet firmed up plans to be at the 49th annual meeting in Philadelphia in October, do so now. It will be time well spent and, as a professional man, we want to count you among those present.

H. S. Adams, *Associate Editor*
Indiana University School of Medicine
Indianapolis, Ind.

BACTERIAL COUNTS OF BULK MILK FOR INTERSTATE SHIPMENT

II. INFLUENCE OF FARM AND PLANT PRACTICES

A. Richard Brazis and Luther A. Black

U. S. Department of Health, Education and Welfare
Public Health Service
Robert A. Taft Sanitary Engineering Center
Cincinnati, Ohio

(Received for publication March 14, 1962)

During this investigation single samples were collected from 773 milk cans, three samples from each of 416 farm bulk tanks, six samples from each of 158 farm pick-up trucks, single samples from 49 storage vats, twelve samples from each of 98 transport trucks, and single samples from 77 storage tanks. Of the samples collected, 96% had counts under 200,000; 1.9% had counts of 200,000 - 300,000; 0.7% had counts of 300,000 to 400,000 and 1.4% had counts in excess of 400,000 per ml.

The bacterial count finding on pumped milk indicated that milk passage through pumps did not appear to contribute to subsequent high counts through the break-up of bacterial clumps which may have been present. When bacterial counts were correlated with observations of the sanitary conditions of milk handling, the data reaffirmed that laxity in cleaning, bactericidal treatment or cooling will be reflected in the bacterial count and may result in the shipment of raw milk having counts in excess of 200,000 per ml.

Although millions of gallons of milk are shipped interstate annually, data on the sanitary aspects of the various procedures used are limited. Several publications have reported on the sanitary significance of single handling procedures, e.g., Bartlett *(2)* stated that milk in cans had an average plate count of 180,000 bacteria per ml, whereas milk from bulk tanks averaged less than 30,000 bacteria per ml. Marth, Hunter, and Frazier *(4)* stated that significant increases did not occur in the bacterial plate counts of milk during transportation from the dairy farm to the receiving station. The results of their study were based upon raw milk sampled from two farm bulk milk tanks of different construction at one dairy farm.

Since comprehensive data have not been available to correlate bacterial counts of raw milk with various farm and plant practices and season of the year, the influence of the latter on the former has been investigated. The evaluation of farm practices included observations of cleaning and sanitizing procedures used at farm bulk tank installations, with collection of appropriate milk samples just prior to transfer of the raw milk to the farm pick up tank truck. Dairy plant practices were observed at receiving stations and processing plants. These data included the cleaning and sanitizing procedures used for farm pick-up tank trucks, plant storage tanks, milk pumps, and milk transport tank trucks. Milk samples were collected at each of these stages and examined for changes in bacterial content and types.

Procedures

Bulk milk shipping stations visited included Bridport, Vermont; Champlain, New York; Bristol, Virginia; Magnolia, Mississippi; Monett, Missouri; Erie, Kansas; Marion, Iowa; Barron, Wisconsin; and Smithfield, Utah. Samples were collected from farm bulk tanks, transport and pick-up trucks and shipping station weigh and holding tanks, pipelines and coolers. Pasteurization plants in Boston, Massachusetts; Jamaica, New York; Pensacola, Florida; Port Arthur, Texas; Dallas, Texas; Chicago, Illinois; and Denver, Colorado, were utilized to study the influence of transportation in over-the-road tankers upon the bacterial counts of raw milk after leaving the shipping station.

The procedures used for the collection of samples from farm bulk tanks, pick-up trucks, storage tanks and milk transport trucks, and the laboratory examinations completed on the samples, are described in a previous publication *(3)*. The sampling procedures and laboratory examinations conformed with the provisions in *Standard Methods for the Examination of Dairy Products*, eleventh edition *(1)*.

Results

Data were collected on the changes in bacterial count of raw milk during the various handling stages from the farm bulk tank to the processing plant. Whenever possible these were correlated with the sanitary condition of the various pieces of equipment used. Since many different operations are involved in the handling of milk from the farm bulk tank to the processing plant, the results of each of these procedures will be presented separately.

Farm Bulk Tanks

The bacterial counts of raw milk produced and stored at most farms sampled averaged less than 30,000 per ml. Figure 1 illustrates the bacterial counts of farm bulk tank milk, averaged for each pick-up truck route at the various geographical lo-

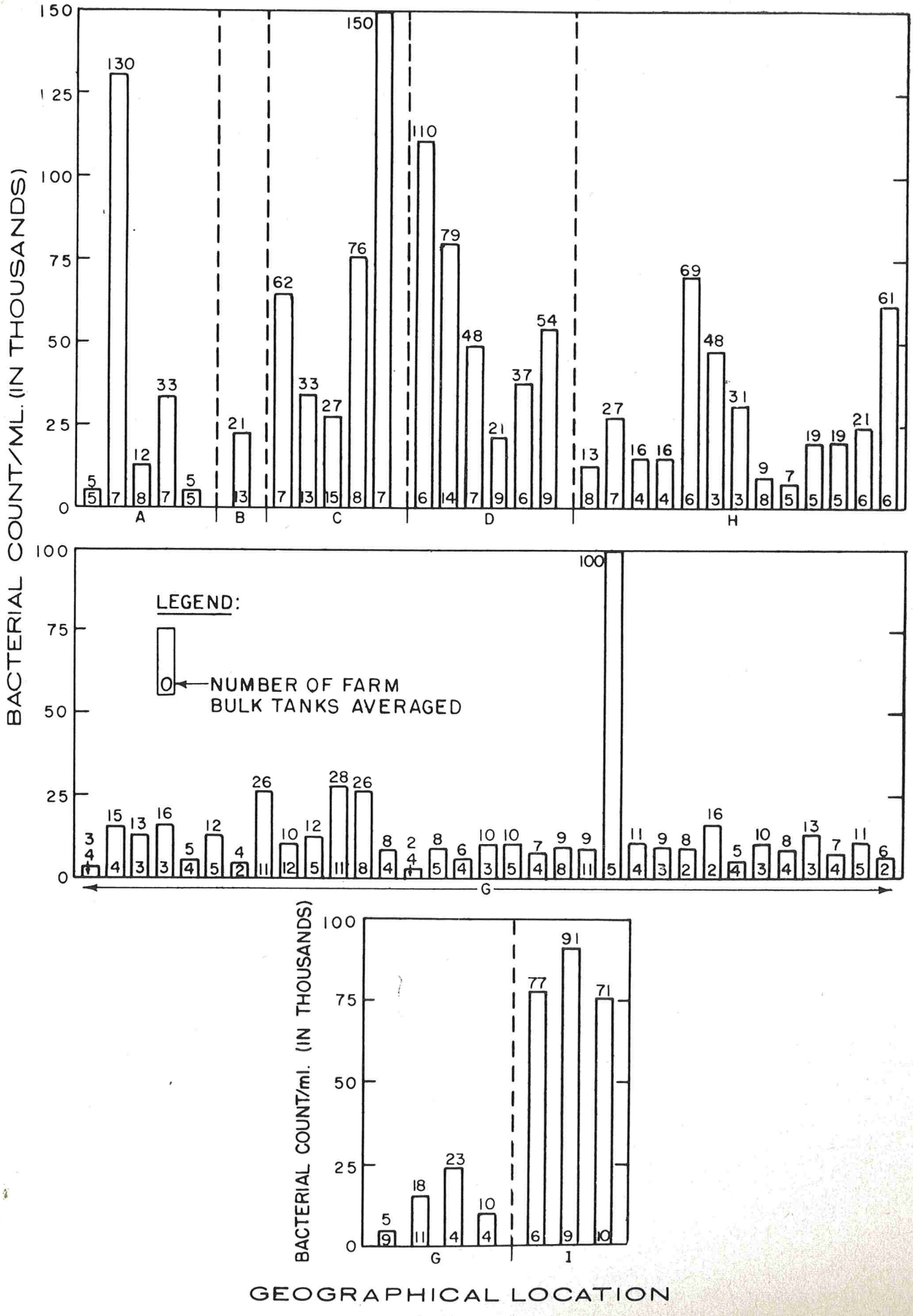

Figure 1. Bacterial Counts of Farm Bulk Tank Milk Averaged for Each Pick-up Truck Route.

TABLE 1. EFFECT OF PUMPING UPON THE BACTERIAL COUNT OF RAW MILK

Milk pump location	A low-count milk		A high-count milk	
	Before	After	Before	After
Pick-up truck at farm	5,500	3,700	120,000	140,000
Storage tank at receiving station	3,000	5,000	410,000	470,000
Transport tank truck at receiving station	28,000	37,000	230,000	270,000
Storage tank at processing plant	64,000	81,000	6,500,000	6,200,000

cations studied. Information relative to the cleaning and sanitizing practices and procedures used at each farm was recorded. Although the investigation was concerned primarily with obtaining bacteriological data relative to interstate and intrastate shipment of milk produced on farms having bulk tanks, many interstate shipments utilized milk produced and stored in cans on farms, and bacteriological data on this procedure also were compiled. Figure 2 illustrates the bacterial counts of milk in cans averaged for each hauler route at two geographical locations. The data illustrated in Figure 2 appear to indicate that in general good practices and procedures are followed by the producers represented.

Pumps

Ninety-eight interstate shipments of milk were studied and the effects of pumping on the bacterial count of raw milk was determined for each of these. The data obtained are being subjected to computer analysis and the results of these analyses are not available at this time. However Table 1 illustrates

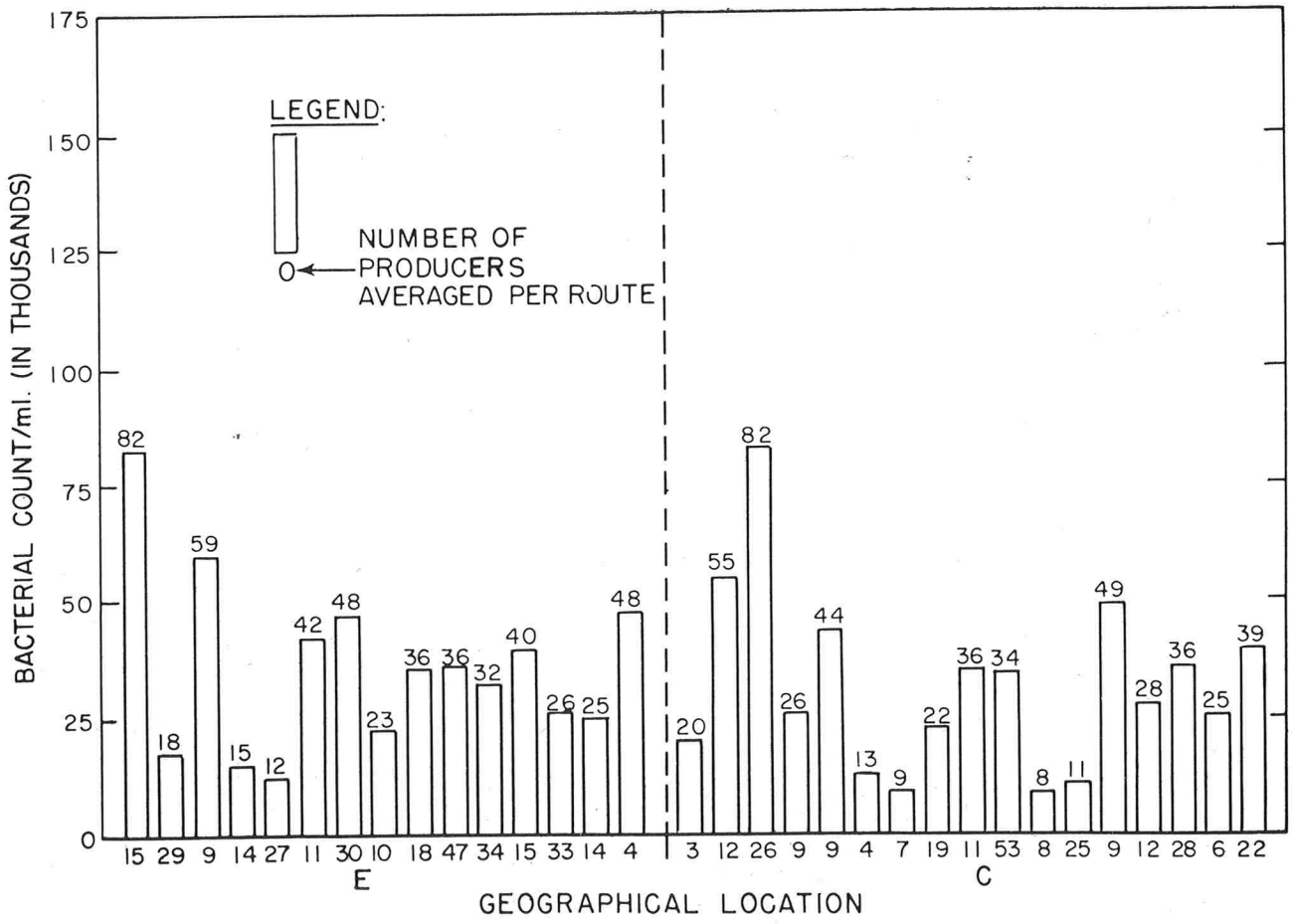

Figure 2. Bacterial Counts of Milk in Cans Averaged for Each Hauler Route.

data representative of that obtained from low-count milk as well as that of a milk with an appreciable bacterial density.

The data compiled have indicated that bacterial counts, of raw milk which are initially low, do not appreciably increase by passage through high-speed pumps. Since the action of pumps might be presumed to break up or disengage any bacterial clumps and thus increase subsequent counts, it would appear that most of the milk sampled from the various shipping stations and pasteurization plants contained relatively few bacterial clumps before pumping or that the pumps did not break up the bacterial clumps if they were present.

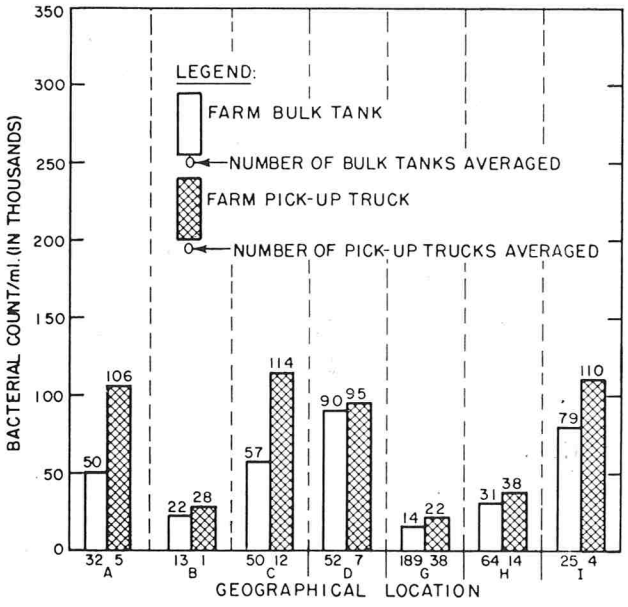

Figure 3. Average Bacterial Counts of Milk from Farm Bulk Tanks and Pick-up Trucks at Various Geographical Locations.

Pick-up and Transport Tankers

At all geographical locations investigated, the shipping station and pasteurization plant practices and procedures were recorded relative to the cleaning and sanitizing of farm pick-up trucks and transport tankers. These data indicate that closer inspections of the efficacy of cleaning and sanitizing of this equipment should be made by sanitarians and dairy plant personnel. Figure 3 illustrates the average bacterial counts of milk samples from farm bulk tanks and pick-up tank trucks at various geographical locations. At locations A and C significant increases in bacterial counts of milk in pick-up trucks occurred, evidently due to the poor cleaning and sanitizing of an outlet valve and a milk pump respectively.

The average bacterial counts of milk transport trucks at shipping stations and pasteurization plants at various geographical locations shown in Figure 4 represent data typical of those obtained when

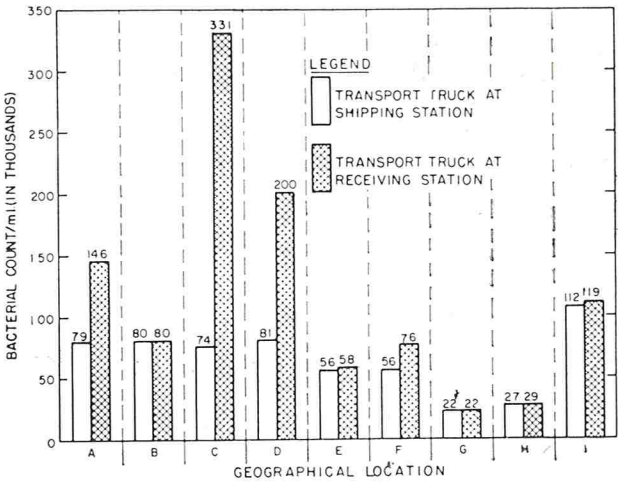

Figure 4. Average Bacterial Counts of Milk from Transport Trucks at Various Geographical Locations.

good and poor shipping practices are followed. Where the bacterial counts of raw milk sampled from farm bulk tanks at three shipping locations (A, C, D, Fig. 3) initially averaged 66,000 per ml, the bacterial counts increased appreciably prior to arrival at the pasteurization plants. The average bacterial count of these milk shipments in transport trucks was 78,000 per ml (A, C, D, Fig. 4) before departure from the shipping stations. Samples taken from these transport trucks averaged 230,000 bacteria per ml upon arrival at pasteurization plants A, C and D. Figure 4 illustrates the increases in bacterial counts which developed during these shipments. Visual examinations of the transport tank truck interiors at these shipping stations indicated that the cleaning and sanitizing procedures appeared to be inadequate.

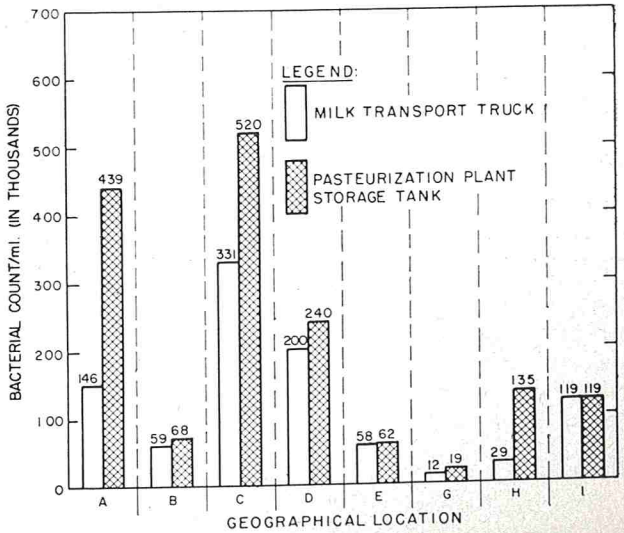

Figure 5. Average Bacterial Counts of Milk from Transport Trucks and Storage Tanks at Various Geographical Locations.

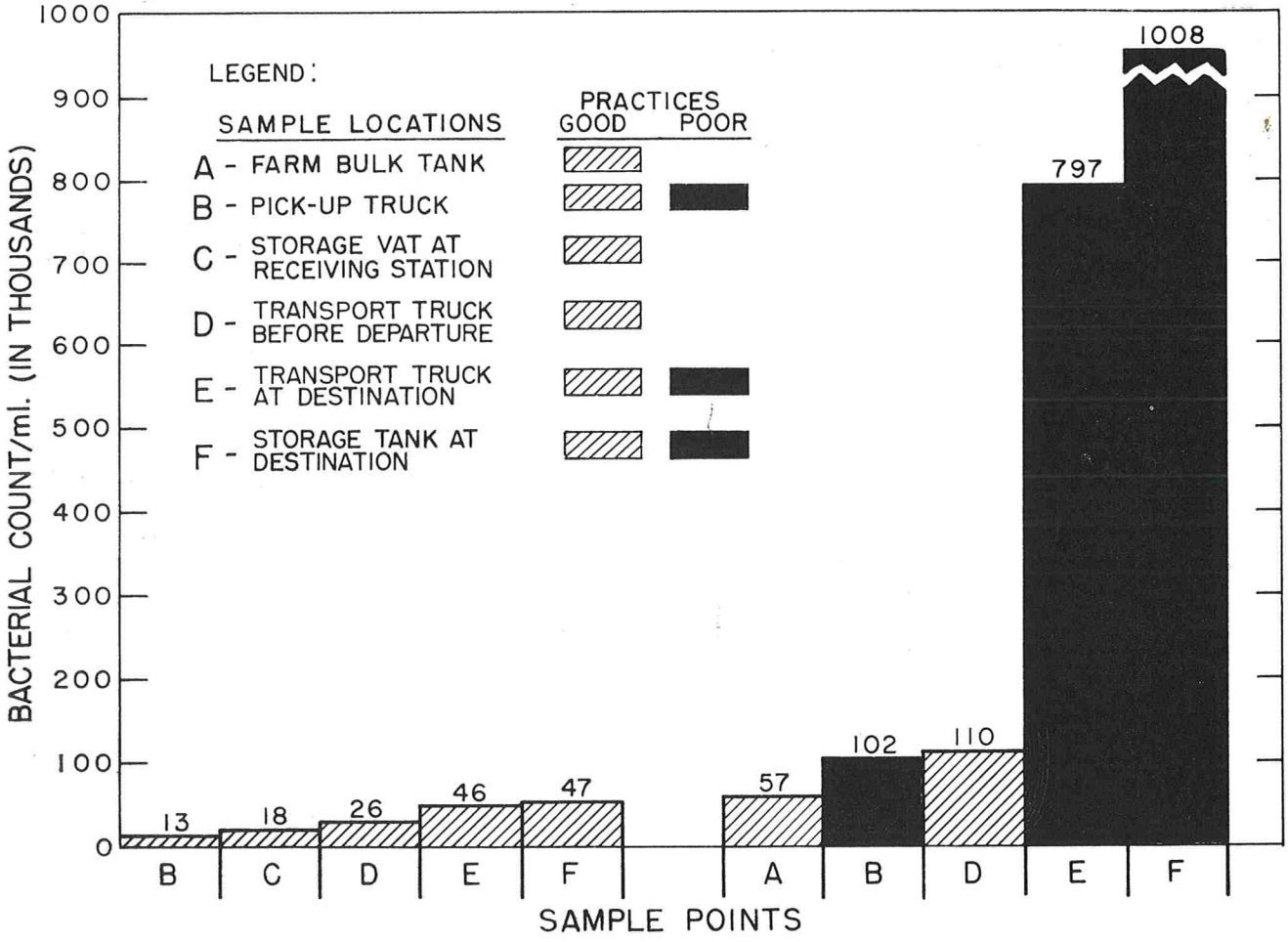

Figure 6. Bacterial Counts of Raw Milk Indicating Good Farm Practices and Good and Poor Shipping Practices.

Storage Tanks

The effect of the sanitary conditions of storage tanks at both receiving stations and processing plants was examined by comparing the bacterial count of milk prior to entering the tank and 20 minutes after cessation of the filling procedure (Fig. 5). It may be seen that major differences in bacterial counts from samples taken from transport tank trucks and storage tanks occurred at pasteurization plants A and C. If samples had been collected from the storage tank only, the data would indicate that the shipments involved raw milk having bacterial counts considerably higher than the accepted limits for raw milk prior to pasteurization. This increase in bacterial count can be the result of either raw milk from a previous shipment which was left in the storage tank and allowed to mix with the transport tank milk or improper cleaning and sanitization of the tank or tank sampling petcock.

Farm and Plant Practices

The data illustrated in Figures 6 and 7 represent the influence of farm and plant practices and procedures upon the bacterial counts of raw milk sampled during the various handling phases at the farm,

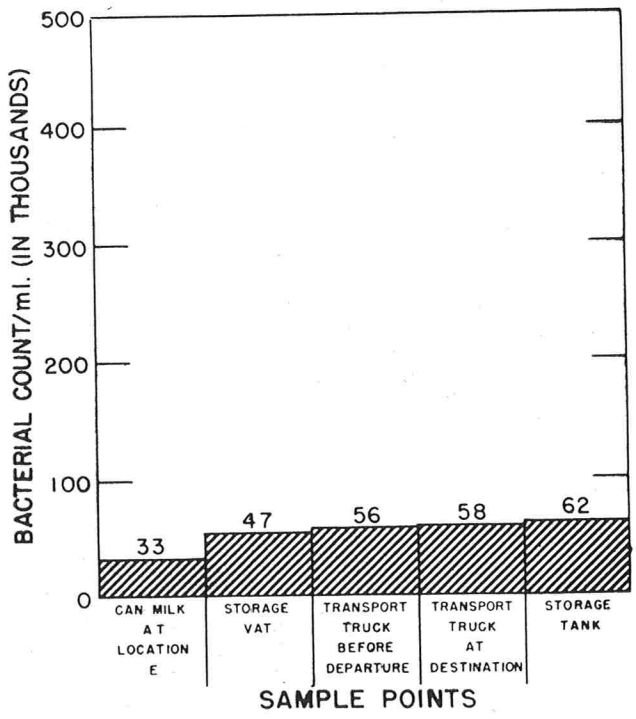

Figure 7. Bacterial Counts of Raw Milk Indicating Good Farm and Plant Practices.

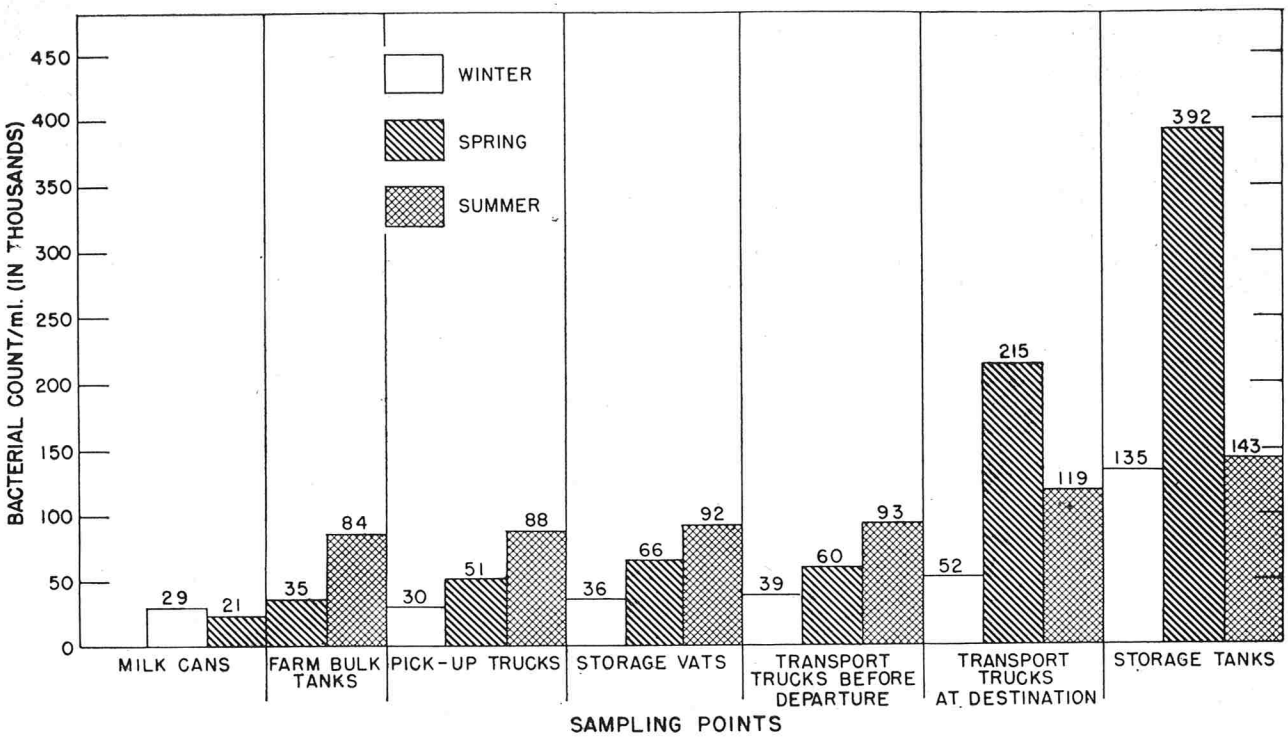

Figure 8. Influence of Seasons upon Bacterial Counts of Raw Milk at Farms, Shipping Stations, and Pasteurization Plants at the Sixteen Locations Studied.

shipping location, and pasteurization plant in the different shipping and receiving areas studied. Figure 6 illustrates the bacterial counts of milk samples obtained where good farm practices were followed on farms having bulk tanks, but good and poor shipping practices were used. Figure 7 illustrates the bacterial counts of milk obtained where good farm practices were followed at farms storing raw milk in cans and subsequent shipping practices were also good. The bacterial counts in Figure 7 represent data collected from one shipping station and one pasteurization plant. The bacterial counts obtained in this area were compared with those of previous years by examination of the records of the local laboratory. A substantial reduction in the bacterial counts in recent years was apparent and this improvement in the sanitary quality of the raw milk appeared to be correlated with the conscientious efforts of the local sanitarian.

Seasonal Variations

The effects of seasonal variation upon the bacterial counts obtained at all shipping stations and pasteurization plants are indicated in Figure 8. In order to define the seasons of the year as applied to the shipping stations and pasteurization plants, ambient temperature was used as the sole criterion. The farm, plant, and shipping practices at all shipping stations and pasteurization plants appeared to be influenced by seasonal variations wherein higher bacterial counts were obtained in the spring than in the other seasons of the year.

The shipment illustrated on the right side of Figure 6 shows an appreciable increase in the bacterial count of raw milk. This shipment occurred during the spring season and the large increase in bacterial count was due to milk temperatures higher than normally found in shipped milk and an improperly cleaned transport tank truck. The temperature of these milk shipments prior to leaving the shipping station averaged 41°F and ranged from 43-47°F when received at the pasteurization plant.

Bacterial Count Distributions

A statistical analysis was made using a frequency distribution histogram of bacterial counts obtained

Table 2. Percentages of Raw Milk Within Three Bacterial Count Ranges

Sampling points	Bacterial count range (per ml)		
	1,000-50,000	1,000-100,000	1,000-200,000
Milk cans (2[a])	88	95	97
Farm bulk tanks (8)	84	91	95
Farm pick-up tanks (8)	63	85	94
Storage tank at shipping station (6)	41	80	98
Transport tankers at shipping station (9)	61	84	97
Transport tankers at pasteurization plant (9)	84	88	96
Storage tank at pasteurization plant (8)	59	73	91

[a]Number of geographical locations sampled.

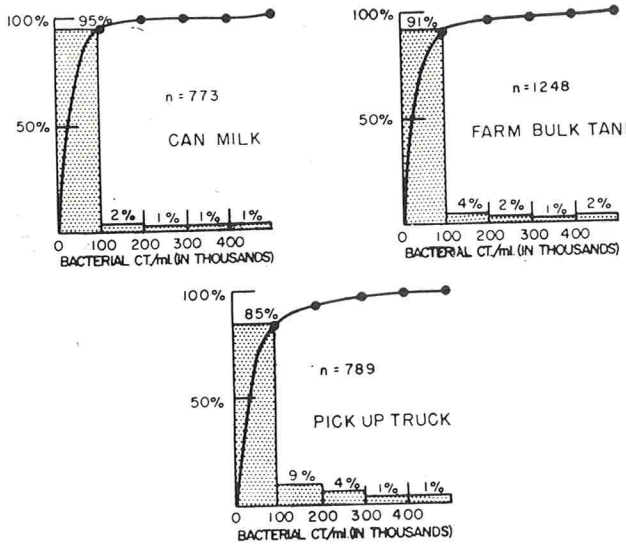

Figure 9. Distribution of counts of all Samples Collected from Sampling Points indicated.

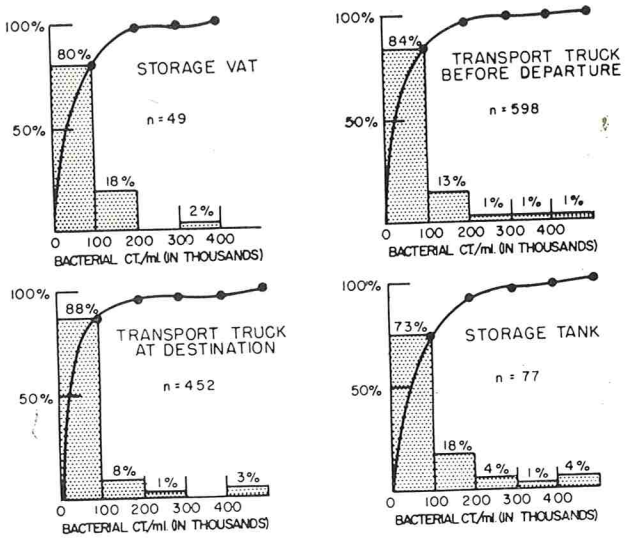

Figure 10. Distribution of counts of all Samples Collected from Sampling Points indicated.

at the various sampling points, at the shipping stations and pasteurization plants studied. The distribution was plotted in terms of five bacterial count ranges: 1 to 100,000; 110,000 to 200,000; 210,000 to 300,000; 310,000 to 400,000; and greater than 410,000 per ml. A cumulative frequency curve was also plotted to indicate the percentage of samples in each bacterial count range. This revealed that 96% were within the range of 1,000 to 200,000. Figures 9 and 10 illustrate the bacterial count ranges pertaining to the specific sampling points. In these figures, *n* represents the number of samples examined at each sampling point. Table 2 presents information relative to bacterial count percentages within three bacterial count ranges on raw milk collected from various sampling points.

Discussion

The normal process for handling milk for interstate shipment involves many procedures which materially affect the bacteriological quality of milk that arrives at the processing plant. According to the data obtained in this investigation, perhaps the most important of these is the bacteriological quality of the milk in the farm bulk tank. Raw milk having bacterial counts originally low have tended to show only slight increases in bacterial counts during the various handling phases at the shipping station and at the pasteurization plant, whereas milk having bacterial counts initially greater than 100,000 SPC/ml appeared to show marked increases during milk transfer at shipping stations and pasteurization plants. Visual examinations of bulk tank interiors throughout the investigation appeared to indicate that most dairy farmers are conscientious in carrying out procedures for maintaining clean, sanitized bulk tanks.

Observations of cleaning procedures followed by pasteurization plants for pick-up and milk transport tank trucks revealed that three different methods were used: *(a)* automatic spray nozzle washes and rinses, *(b)* manual cleaning, and *(c)* fixed air line spray cleaning. Care should be exercised in the utilization of the spray nozzle procedures since mechanical failures of this type of equipment can materially affect the efficiency of the cleaning procedure. Failure of a nozzle to rotate or spray was observed at some pasteurization plants and shipping stations. The degree of efficiency to be expected from manual cleaning of farm pick-up trucks and milk tankers will depend to a large degree upon the conscientiousness of the person performing the operation. Far too often trucks were not inspected by responsible dairy plant personnel following completion of the cleaning and sanitizing procedures. Special care should be given to the cleaning and sanitizing of the milk pump and valve housing as well as the transfer tubing on farm pick-up trucks. The procedures used for cleaning milk transport trucks should be closely supervised.

Observations of milk transport tank trucks cleaned with air agitation apparatus indicated that the cleaning efficiency can be adversely affected by certain equipment inadequacies. Although air agitation equipment when properly used did appear to agitate milk present in milk transport tanks sufficiently, its application in the cleaning of the transport tank appeared to be affected primarily by three factors: *(a)* amount of spray exerted upon the top interior surfaces of tanks, *(b)* absence of spray holes to permit wash and rinse solutions to adequately contact the lower surfaces of tanks, and *(c)* pumping of wash and rinse water from tanks at a rate necessary to permit spray holes to remain unsubmerged. The

last factor had a critical effect upon the efficiency of this procedure since wash and rinse solutions have been observed to remain in tanks in amounts sufficient to submerge the spray holes, thus preventing efficient cleaning of surfaces.

Generally personnel at the pasteurization plants were responsible for the cleaning and sanitizing of tank trucks. Because of poor instructions concerning transport truck assignments, drivers delivered tank trucks to shipping stations which had not been cleaned or even rinsed. When this situation existed, the diligence of shipping station personnel in checking tank trucks for cleanliness was a deciding factor influencing subsequent milk quality. Undoubtedly, trucks at some shipping stations had not been carefully scrutinized prior to filling with raw milk. At three shipping stations tank trucks were occasionally spot-checked for cleanliness by the senior author. Several tanks were found to contain milk solids or milk films on their inner surfaces. It is likely that the increase in bacterial counts of raw milk which came from these three locations developed because of transportation in poorly cleaned tank trucks.

Numerous sanitarians and other health officials have questioned the need of sampling milk transport trucks when pasteurization plant holding tanks are normally used for storing this milk and when adequate agitation of the milk can be provided prior to sampling. The results obtained from some examinations of shipped milk in pasteurization or receiving station holding tanks, however, indicate that bacterial counts of milk from holding tanks may not reflect those of milk from tank trucks. Reasons for this may be: *(a)* the plant holding tank may not be able to hold all of the milk in the transport tanker, *(b)* the holding tank may not be cleaned and sanitized, *(c)* the holding tank sampling petcock, if present, may not be in a sanitary condition, and *(d)* other milk already may be present in the holding tank which would mix with the tank milk.

In the areas studied during this investigation it was found that a majority of the farmers and dairy plant personnel are following the practices and procedures considered essential to the production of milk of high sanitary quality. In those shipping areas where local sanitarians were not able to devote sufficient time to dairy farms and dairy plants, the bacterial counts were higher than those areas receiving a substantial amount of supervision. The data obtained reaffirm that achievement of a low bacterial content during production, handling, and transportation of a milk supply is dependent to a large extent upon the supervision given to milk producers and dairy plants by local and state sanitarians.

REFERENCES

1. American Public Health Association. *Standard Methods for the Examination of Dairy Products.* Eleventh Edition. 1960.

2. Bartlett, R. W. Farm Tank Holdings of Milk. Ill. Farm Econ., Nos. 198-199: 1265-1267. Nov.-Dec. 1951.

3. Brazis, A. Richard and Black, Luther A. Bacterial Counts of Bulk Milk for Interstate Shipment. I. Effect of Sampling Procedures. J. Milk and Food Technol., **25**:172-175. 1962.

4. Marth, E. H., Hunter, J. E., and Frazier, W. C. Bacteriological Studies of a Farm Bulk Milk Handling System. J. Milk and Food Technol., **17**:86.1954.

REPORT OF THE COMMITTEE ON COMMUNICABLE DISEASES AFFECTING MAN – 1961

Further analysis of the survey information on the reporting of foodborne disease outbreaks which was collected during the year 1958 was undertaken by the Committee on Communicable Diseases Affecting Man. The principal objective was to arrive at an estimate of the number of outbreaks and cases of foodborne illness being reported to and investigated by State and local health agencies annually in the United States. However, at the same time, a comparison was made of the number of outbreaks being reported annually to the National Office of Vital Statistics (NOVS) with those which, though officially investigated, were not reported to NOVS. It should be noted in the following discussion that the IAMFS data were from a group of 95 cities and 7 States having a combined total population of approximately 52 million persons, based on population estimates as of January 1, 1959. The Canadian data were from eight of the ten Provinces.

Figures 1 and 2 show a comparison of the IAMFS survey data for the years 1957 and 1958, respectively, with the data published by NOVS for the same period. For the year 1957, there were 250 outbreaks of foodborne illness involving 11,085 cases reported to NOVS. During this same period, however, there were an additional 207 outbreaks and 2194 cases reported by the cities and States responding in the IAMFS survey. Although investigated by State and local health authorities, these outbreaks were not subsequently reported to NOVS. During the year 1958, 236 outbreaks and 9925 cases were reported to NOVS, whereas the IAMFS survey revealed an additional 210 outbreaks and 2850 cases which were not reported to NOVS. While there were almost as many additional outbreaks reported in the IAMFS survey as were reported to NOVS, the average number of cases per outbreak was only approximately one-fourth for the two year study period (IAMFS - 10.6 cases per outbreak; NOVS - 43.3 cases per outbreak). From this, it might be assumed that the size of the outbreak has a bearing on whether or not it is reported to NOVS.

To arrive at an estimate of the number of outbreaks being reported to and investigated annually by State and local health agencies in the U. S., the limited survey data were extrapolated to represent the total U. S. population. On the basis of this extrapolation, it is estimated that 693 outbreaks involving 7340 cases in 1957, and 702 outbreaks involving 9525 cases in 1958, were investigated by State and local health agencies in this country but were never subsequently reported to NOVS. When these data are added to the NOVS figures for those years, we can estimate, as shown in Figures 3 and 4, that the total number of outbreaks investigated during each of the years studied were 943 (involving 18,425 cases) for 1957, and 938 (involving 19,450

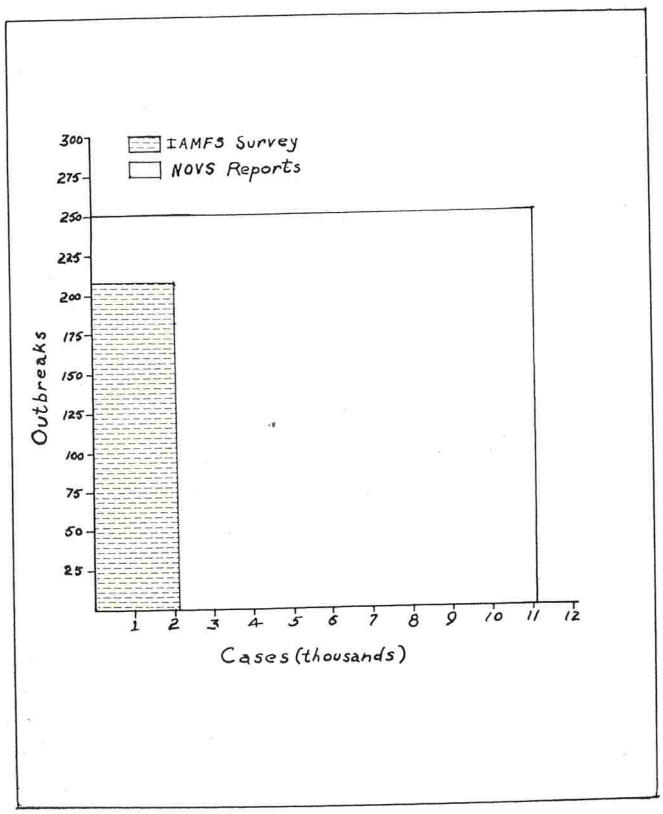

Figure 1. Outbreaks and cases of foodborne illness in the U. S. for 1957. A comparison of IAMFS survey data with data reported to NOVS. (IAMFS survey included reports received from 7 States and 95 local health jurisdictions having an estimated population of 52.3 million.)

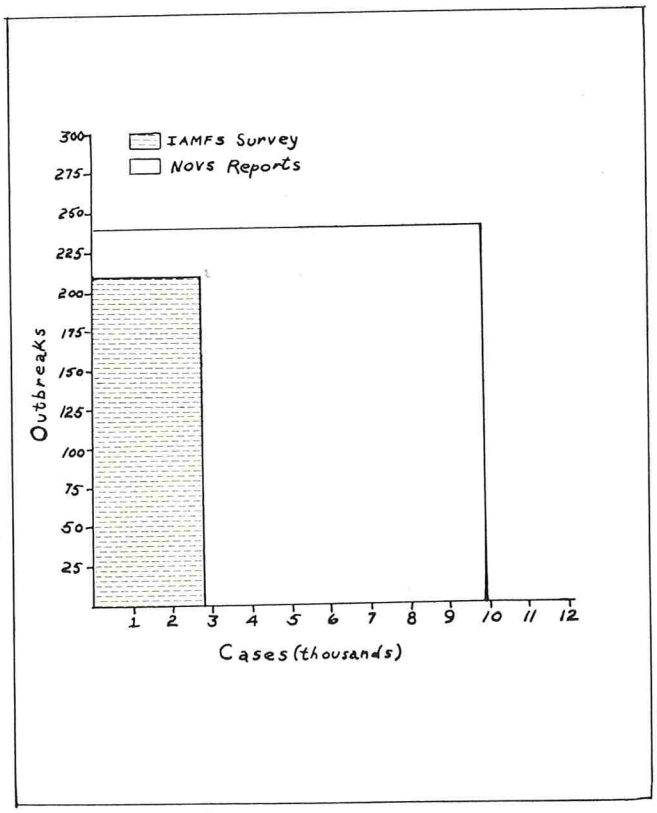

Figure 2. Outbreaks and cases of foodborne illness in the U. S. for 1958. A comparison of IAMFS survey data with data reported to NOVS. (IAMFS survey included reports received from 7 States and 95 local health jurisdictions having an estimated population of 52.3 million.)

TABLE 1. COMPARISON OF FOODBORNE ILLNESS OUTBREAK RATES FOR UNITED STATES, ENGLAND-WALES, AND CANADA

Reporting period	Avg. annual outbreak rate per million population			
	United States	IAMFS[a]		England - Wales
		U. S.	Canada	
1954-58				10.6
1957-58		5.4[b]	8.4[c]	
1956-60	1.5[d]			

[a]Extrapolated IAMFS data plus NOVS data.
[b]Calculations based on population estimates as of January 1, 1959.
[c]Based on IAMFS survey reports received from 8 Provinces.
[d]Based on Novs reports.

cases) for 1958. These estimates represent only investigated outbreaks, and not the number of outbreaks which actually occurred.

Table 1 compares the survey data with those available for the United States, Canada and England-Wales. Although the average outbreak rate per million population, based on the combined NOVS and extrapolated IAMFS survey data, falls considerably below the average for Canada and England-Wales, it is well above the U. S. average, based on NOVS reports.

In summarizing the Committee's report on this survey, it is felt that the information received and studied clearly reflects the need in this country for increased emphasis on the reporting of all incidents of foodborne illness, regardless of their size. According to the data secured from this limited survey, we can expect approximately 1000 outbreaks involving almost 20,000 persons to be reported to and investigated by State and local health agencies in the U. S. each year, using present levels of reporting. However, it is recognized that reporting is grossly inadequate. Dr. Carl C. Dauer, of the National Office of Vital Statistics, has estimated that the *actual* incidence is probably in the neighborhood of one million cases a year. While it would be idealistic to think that all outbreaks could ever be expected to be reported, it is hoped that this survey will encourage everyone concerned with the reporting of such illnesses to place increased attention on the thorough investigation and complete reporting of those incidents occurring within their jurisdiction. As sanitarians, concerned with the prevention of such illnesses, we have an obligation to encourage the accurate and complete reporting of foodborne disease outbreaks which come to our attention in order that we may not only secure adequate budgetary support for our preventive programs but, more important, provide a basis for the effective direction and operation of our food protection programs. Effective levels of protection are dependent upon a more accurate assessment of the magnitude of the problem.

The Committee recommends that, with the approval of the Executive Board, one of the following projects be undertaken for the coming year:

1. Review the booklet "Procedure for the Investigation of Foodborne Disease Outbreaks", published in 1957, and prepare a revision if such action is indicated.

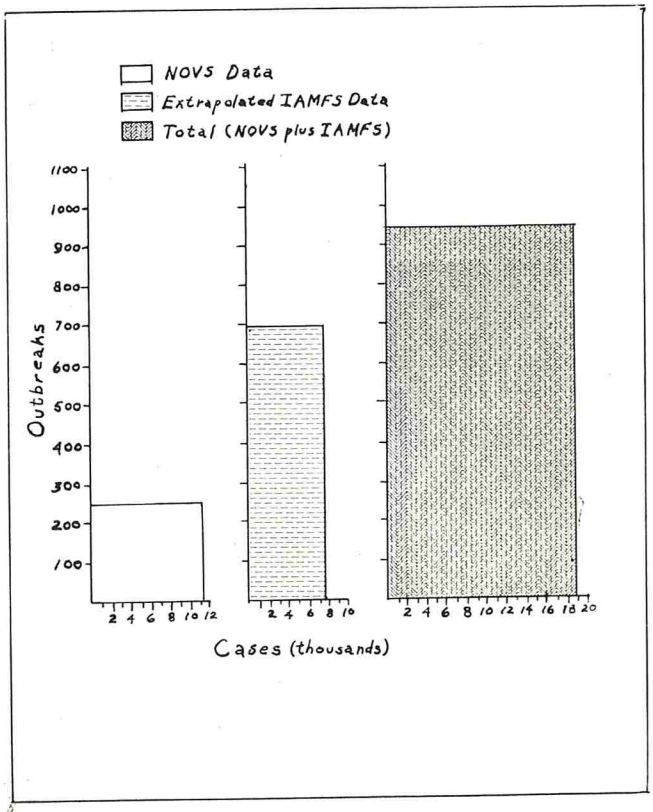

Figure 3. Estimated number of outbreaks and cases of foodborne illness investigated by health agencies in the U. S. in 1957. A comparison of IAMFS survey data with data reported to NOVS. (IAMFS survey included reports received from 7 States and 95 local health jurisdictions having an estimated population of 52.3 million.)

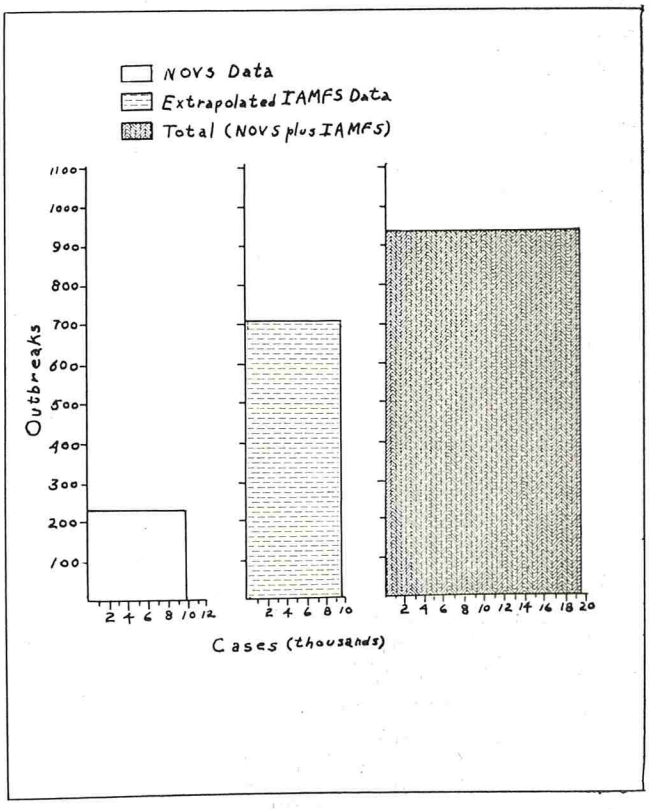

Figure 4. Estimated number of outbreaks and cases of foodborne illness investigated by health agencies in the U. S. in 1958. A comparison of IAMFS survey data with data reported to NOVS. (IAMFS survey included reports received from 7 States and 95 local health jurisdictions having an estimated population of 52.3 million.)

2. Study the relationship between the incidence of infectious hepatitis and various environmental factors.

3. Study new food processing methods such as vacuum packaging, freeze drying and reconstitution of non-sterile potentially hazardous foods, and report on the extent to which such methods are used, together with their public health implications.

Mr. Tim Sullivan, a Committee member since 1958, died during the year. His absence will be felt not only by this Committee but also by the entire Association.

Acknowledgement is given to Mr. Robert P. Hayward, an Association member, who, though not a member of this Committee, has given freely of his time in the analysis of the survey data and the preparation of the charts which accompany this report.

Committee Members:

Mr. John H. Fritz, *Chairman*
Washington, D. C.

Mr. John Andrews	Dr. Stanley L. Hendricks
Raleigh, North Carolina	Des Moines, Iowa
Dr. H. L. Bryson	Dr. Dwight D. Lichty
Vancouver, B.C., Canada	West Palm Beach, Florida
Dr. F. B. Clack	Dr. E. R. Price
Pittsburgh, Pennsylvania	Jefferson City, Missouri

OBJECTIVES, ORGANIZATION, AND IMPLEMENTATION OF THE NATIONAL ADVISORY COMMITTEE ON COORDINATION OF DEFINITIONS, STANDARDS, AND LABELING REQUIREMENTS FOR DAIRY PRODUCTS

HAROLD J. BARNUM[1]
Secretary National Labeling Committee

The confusion which exists in many areas of the country due to the lack of uniformity in labeling regulations of dairy products and the interpretations of these requirements is well known to most persons engaged in regulatory and dairy industry work. The problem is not altogether one of differences between states. The manner in which local and state laws and regulations have been adopted over the years has contributed much to the confusion. A study of the history of the development of local, state, and federal dairy regulations helps one to understand the reasons for this non-uniformity in labeling regulations. In many instances the confusion is due simply to differences in interpretations and a lack of understanding of the basic concepts and principles of labeling. The introduction of new products and the rapid increase in intra- and interstate commerce in dairy products have done much to complicate the situation. Where once the problem of labeling was purely a local one of minor significance it now becomes one of major importance.

Because of this confused and frustrating situation a number of persons in regulatory work sought ways and means of obtaining relief. Their desire to correct the situation was shared by representatives of the dairy industry. Collectively, the interested parties asked the Executive Board of the International Association of Milk and Food Sanitarians to study the problem. It was felt that if this problem of non-uniformity, and more particularly, the disagreement in interpretations could be resolved all parties concerned including the public, the regulatory agencies, and the dairy industry would benefit. It was pointed out that unnecessary expense is borne by the industry because of the multiplicity of labeling requirements and disagreements in interpretations. Some areas of the country are very active in labeling while others are not. Many control officials are anxious to have guide lines or standards to help them in their work in approving or disapproving labels. Some regulatory people felt that too much time is involved in label reviewing under the present confused situation. When considered from every standpoint the entire problem seemed of such importance that a nationwide study and approach seemed logical.

After due consideration the Executive Board of the International Association of Milk and Food Sanitarians asked the Committee on Ordinances and Regulations of the Association to make this study their main objective. It was the feeling of the Committee on Ordinances and Regulations that the work of the 3-A Sanitary Standards Committee had been so outstanding, and the results so far reaching that it might be well to pattern their work after the 3-A Committee and to approach the problem in a similar manner. Donald H. Race was Chairman of the Committee. During the ensuing year he was assisted by the legal staff of the Dairy Industry Committee in determining the legal aspects of such an organization. Many other details were also studied.

Meanwhile, the Program Committee for the National Conference on Interstate Milk Shipments be-

[1]Mr. Barnum is Executive Secretary of the Dairy Products Institute with headquarters in Ithaca, N. Y.

came interested in the problem of non-uniformity in labeling requirements. Their interest was that non-uniformity in labeling interfered with the free flow of milk and its products. This subject was given priority and a panel discussion was arranged at the formal meeting of the Conference in April 1959. Participants from local, state, and federal levels joined hands with dairy industry people in pointing out the economic and public health need of uniformity. The Conference membership asked that a committee from their organization be appointed to work with the International Association of Milk and Food Sanitarians in bringing about realization of the goal of uniformity in labeling.

In order to bring the problem directly to the membership of the International Association of Milk and Food Sanitarians, a panel discussion was arranged for the 1959 meeting of this group in Glenwood Springs, Colorado. This panel, which was made up of dairy industry and regulatory personnel, strongly pointed out the seriousness of the confused and non-uniform situation. The need for action was clearly and forcefully presented. The Association then passed the following resolution:

> Whereas, it will promote honesty and fair dealing in the interest of consumers generally and in the interest of milk and dairy products manufacturers, processors, and distributors to have proper, uniform, and informative labeling for milk and dairy products and to have uniformly accepted definitions and standards of identity and commonly applied names for the designation of such foods:
>
> Therefore, be it resolved that this committee recommends that the International Association of Milk and Food Sanitarians consult with the Food and Drug Administration and the Public Health Service of the United States Department of Health, Education, and Welfare and other appropriate agencies and organizations in the interest of exploring and developing a plan which will utilize and coordinate the work of such groups for the purpose of developing and promulgating:
>
> (a) Uniform labeling practices for milk and dairy products.
> (b) Uniform definitions and standards of identity for milk and dairy products, where this appears desirable in the the judgment of the groups concerned; and,
> (c) Commonly accepted designations and nomenclature for milk and dairy products with the intent of securing broad general acceptance thereof by federal, state, and local regulatory authorities.

Immediately after the Glenwood Springs meeting active work began. The appropriate federal agencies were contacted by Dr. A. C. Dahlberg, Advisor to the Board of the Dairy Products Improvement Institute and Dr. Franklin Barber, Immediate Past President of I.A.M.F.S. These men outlined the objectives of the program in order that there would be no conflict in interest or intent with these federal agencies. Cooperation and assistance in the project was assured. The Committee on Ordinances and Regulations then sponsored a meeting of representatives from 20 national and international associations and three federal agencies in Chicago in October 1960. The need for uniformity was universally agreed upon at this meeting. The 3-A Sanitary Standards Committee idea received favorable support. It was the belief of the group that voluntary agreements are better than legislation to bring about understanding and compliance in such complicated matters. It was also their collective belief that unless we find a way to resolve our differences and work out sound interpretations and standards of identity the job will be done on a federal level and our states' rights and privileges will have a different meaning.

The group assembled in Chicago expressed strong feelings in regard to the actual work required to carry out the objectives and functions of such a project. The general opinion was that it would require more than the time and effort of a voluntary organization depending on voluntary help. It was agreed from the beginning that financial support was necessary if the project is to succeed. Dr. A. C. Dahlberg was asked to serve as Temporary Chairman and Mr. Ernest B. Kellogg, Director of Technical Services of the Milk Industry Foundation, agreed to serve as Temporary Secretary.

A Subcommittee on Organization of a national committee on uniform labeling was appointed. Three meetings of the Subcommittee were held at which By-laws and functioning of the Committee were developed. A Finance Committee, headed by Mr. William V. Hickey of the Paper Cup and Container Institute, Inc. and Past President of IAMFS, was appointed to explore ways and means of financing the work. It was the Finance Committee's decision that only national associations of dairy products manufacturers, processors and distributors, and national associations of manufacturers and distributors of dairy machinery and supplies would be asked to support the project. The Committee has successfully gained financial support from these organizations which will give the effort a good start.

From the inception of the idea the Board of Directors of the Dairy Products Improvement Institute took a great deal of interest in the project. Since the general purpose of the Institute is to work toward the elimination of costly duplication and conflict in sanitary regulations it seemed logical and proper that this group should offer their facilities and personnel to get the project started. Dr. Dahlberg and the office staff of DPII spent much time and effort on this project during the period of organization. In February 1962 the Institute Board agreed to use the Institute office as headquarters for the operation and its chief employee to do the work as directed by the National Labeling Committee. It was obvious to everyone that someone experienced in regulatory work should be employed to carry out the actual

detailed work of the Committee. The Institute Board then selected me to serve as Executive Secretary of the Institute with the understanding that about three quarters of my time will be devoted to the labels project. My employment in this capacity is on a loan and leave of absence basis from my position as Chief Milk Sanitarian for the City and County of Denver, Colorado.

The National Labeling Committee held their first meeting in Atlanta, Georgia June 15, 1962. Officers and Executive Committee members were elected, By-laws adopted and several activities projected.

The basic provisions of the Bylaws as adopted are as follows:

ARTICLE I

Name and Purpose

SECTION 1. The name of the committee shall be National Advisory Committee on Coordination of Definitions, Standards, and Labeling Requirements for Dairy Products", hereinafter referred to as "National Labeling Committee".

SECTION 2. The purpose of the National Labeling Committee shall be to promote the voluntary adoption and implementation of uniform definitions, standards, and required labeling information for dairy products by local, state, and federal regulatory agencies and to aid in resolving conflicting interpretations thereof, wherever it appears that such activity will (a) promote honesty and fair dealing in the interest of consumers; (b) assist regulatory agencies (as herein defined) in the proper carrying out of their responsibilities in the public interest and (c) assist dairy products processors, manufacturers and distributors by the elimination of multiple conflicting requirements which impair the free movement and distribution of dairy products.

SECTION 3. For the purpose of these By-laws a "regulatory agency" is defined as one having duly constituted governmental authority at the federal, state, or local level to adopt or enforce definitions, standards, and labeling requirements for dairy products and shall include the United States Public Health Service and the United States Department of Agriculture.

ARTICLE II

National Labeling Committee Membership

SECTION 1. Members of the National Labeling Committee shall be representatives designated by:

(a) National associations interested in dairy quality control, viz: American Dairy Science Association; American Public Health Association, Inc.; Association of Food and Drug Officials of the United States; Association of State and Territorial Health Officers; International Association of Milk and Food Sanitarians, Inc.; National Association of State Departments of Agriculture — Dairy Division; National Conference on Interstate Milk Shipments.

(b) National associations of dairy products manufacturers, processors and distributors, and national associations of manufacturers and distributors of dairy machinery and supplies, both groups of which support financially the work of the National Labeling Committee (all such associations being hereinafter referred to collectively as "Industry Associations"); and

(c) Regional Committees as provided for in Article III.

Other interested associations or groups may be accepted for membership in one of the above groups subject to a majority vote of the National Labeling Committee.

The following United States Government agencies shall be invited to appoint representatives to the National Labeling Committee in an advisory capacity: The Food and Drug Administration, the Department of Agriculture, and the Public Health Service.

ARTICLE III

Regional Labeling Committees

SECTION 1. The National Labeling Committee shall encourage the establishment of regional committees in areas which may be concerned with particular problems involving the national committee's purpose or which are suitable for a regional activity for geographic or other reasons. The membership of each regional committee shall be made up from representatives of regulatory agencies and industry. The Chairman of each regional committee or his representative shall serve as a member of the National Labeling Committee.

When the Secretary has determined that a regional committee is so constituted as to be representative of its region for the purposes of this Committee, he shall recommend to the National Labeling Committee the acceptance of the regional committee for purposes of representation on the National Labeling Committee. Upon acceptance, the regional committee shall be notified and directed to furnish the name and address of its representative on the National Labeling Committee.

SECTION 2. The National Labeling Committee shall advise and assist in the organization of regional committees and shall cooperate with each regional committee in respect to area projects and in handling projects at the request of the regional committee. Details of the operation and functioning of regional committees shall be the responsibility of the respective regional committees, provided their objectives are not inconsistent with the aims and purposes of the National Labeling Committee.

SECTION 3. The National Labeling Committee shall conduct its activities to the extent possible through regional committees. Each regional committee shall be a source of information concerning current differences in labeling requirements and interpretations needing attention. The national and regional committees shall cooperate closely in the handling of problems.

There is a provision similar to the 3-A Sanitary Standards organization providing for participation in committee activities and other matters. Members designated by associations falling within the categories mentioned and described in (a) and (c) of Section 1 of Article II of the By-laws shall vote as a group and the representatives of associations described in (b) shall vote as a group. The concurrence of these two groups shall be required in order to establish the position of the National Labeling Committee with respect to such matters.

Officers of the National Labeling Committee shall be the Chairman, a Vice Chairman, a Secretary and a Treasurer. The Chairman shall be engaged in regulatory work and the Treasurer shall be Chairman of the Finance Committee. The officers, with

the exception of the Secretary, shall serve without compensation.

The By-laws set forth the usual committee, annual budget, meeting, and amendment provision.

All associations, groups and federal agencies presently participating in the project have named their representatives. Officers and Executive Committee members elected at the June 15, 1962 meeting are as follows:

Chairman - M. W. Jefferson
Vice Chairman - Shelby Johnson
Secretary - Harold J. Barnum
Treasurer - Ernest B. Kellogg
Executive Committee:
Morton S. Hilbert
William V. Hickey
William H. E. Reid

The Northeast Dairy Labeling Committee which was organized more than three years ago is a Regional Committee member of the National Labeling Committee. This group has presented several problems to the Committee for advice and consideration. Some of the problems presented were as follows: What constitutes proper identification of the manufacturer on a private label? What constitutes the main panel? Define "modified". Define "standardized". What is meant by "fortified" and "enriched"? Provide guidance in the use of trade names and butterfat content.

The next meeting of the National Labeling Committee will be held on October 27, 1962 in Philadelphia, Pennsylvania. Three task force committees have been appointed. These committees are Definitions, Product Identification, and Identification of Manufacturer, Packer or Distributor.

An important feature of the program and the organization of the Committee is the participation as advisors by three federal government agencies. These agencies are: The Food and Drug Administration, the Department of Agriculture, and the Public Health Service. These agencies welcome voluntary consideration and assistance in the study of these complicated matters. It is apparent that these agencies will have a stabilizing effect on the work of the Committee. The Committee's recommendations and findings can be used extensively by these agencies in connection with their recommendations and implementation of the basic labeling requirements.

The need for corrective measures became more evident as the Committee study progressed and the plan of organization and implementation developed. Every phase of all the complicated situations that cause the confused situation were considered carefully. The plan of operation is patterned after, and carefully parallels the time-tested and highly successful 3-A Sanitary Standards Committee procedures and objectives.

Perhaps the main function of the Committee will be to serve as an agency or center for assembling the thinking of local, state, and federal regulatory agencies along with the dairy industry regarding labeling requirements and their interpretations for dairy products. Having secured this basic information from all parties concerned, the Committee will then coordinate this material into a tool or information document which can be used by all parties concerned.

The program provides an effective vehicle for self discipline by the dairy industry. It provides an excellent sounding board for regulatory agencies. The strictly voluntary feature of the plan makes participation by local and regional groups important and necessary. Regional Committees provide the vehicle for this support.

PROGRAM

FORTY-NINTH ANNUAL MEETING
INTERNATIONAL ASSOCIATION OF MILK AND FOOD SANITARIANS, INC.

In Cooperation With

THE PENNSYLVANIA DAIRY SANITARIANS ASSOCIATION

OCTOBER 24-27, 1962

BEN FRANKLIN HOTEL — **PHILADELPHIA, PENNSYLVANIA**

REGISTRATION

Wednesday, October 24—3:00-6:00 p.m. Mezzanine
Thursday, October 25—8:00 a.m.-6:00 p.m. Mezzanine
Women's Activities, Independence Room

Registration Fee—$5.00

IAMFS OFFICERS

President: Charles E. Walton, Laramie, Wyoming
President Elect: Ray A. Belknap, Barrington, Illinois
First Vice President: John H. Fritz, Washington, D. C.
Second Vice President: W. C. Lawton, St. Paul, Minnesota
Secretary-Treasurer: Karl K. Jones, Indianapolis, Indiana
Executive Secretary: H. L. Thomasson, Shelbyville, Indiana
Assistant Executive Secretary: John D. Simpkins, Shelbyville, Indiana

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Wm. V. Hickey — John H. Fritz
John J. Sheuring — W. C. Lawton
Charles E. Walton — Karl K. Jones
Ray A. Belknap — H. L. Thomasson, *Ex-officio*

JOURNAL OF MILK AND FOOD TECHNOLOGY

Associate Editor: J. C. Olson, Jr., St. Paul, Minnesota
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President Elect: Edwin Wagner, Harrisburg, Pennsylvania
Vice President: John O. Muirheid, Trenton, New Jersey
Secretary-Treasurer: Homer Young, Glenshaw, Pennsylvania
Association Advisor: Ivan E. Parkin, University Park, Pennsylvania

PROGRAM COMMITTEE, IAMFS

Ray A. Belknap, *Chairman* — W. C. Lawton
John H. Fritz — Karl K. Jones

LOCAL ARRANGEMENTS AND STEERING COMMITTEE

Ivan E. Parkin, *Chairman* — John O. Muirheid
Clarence M. Moss — Earl W. Cook
Frank P. Ottino — Wade White

MONDAY, OCTOBER 22, 1962

3:00 p.m.—Executive Board Meeting, Suite 758
6:00 p.m.—Dinner
8:00 p.m.—Executive Board Meeting, Suite 758

TUESDAY, OCTOBER 23, 1962

8:00 a.m.—Executive Board Meeting, Suite 758
12:00 p.m.—Lunch
1:30 p.m.—Executive Board Meeting, Suite 758
6:00 p.m.—Dinner
8:00 p.m.—Executive Board Meeting, Suite 758

WEDNESDAY, OCTOBER 24, 1962

3:00-6:00 p.m.—Registration, Mezzanine

SPECIAL MEETINGS

8:00 a.m.-12:00 noon—Executive Board, Suite 758
(1) Report on Local Arrangements
(2) Report of Executive Secretary
(3) Report on Sanitarians Joint Council

12:00 noon-1:00 p.m.—Lunch

1:30 p.m.-3:00 p.m.—Executive Board, Suite 758
(1) Report of Affiliate Council Chairman
(2) Report of Journal Management Committee
(3) Regular Agenda

1:30 p.m.-5:00 p.m.—Individual Committee Meetings
(See Bulletin Board)

3:00 p.m.-5:00 p.m.—Executive Board and Affiliate Council Meeting—Jefferson Room

6:00 p.m.—Dinner

7:00 p.m.—Executive Board Meeting, Suite 758
Committee Chairmen and Committee Members

THURSDAY, OCTOBER 25, 1962

8:00 a.m.-6:00 p.m.—Registration, Mezzanine

MORNING — GENERAL SESSION
Barry-Franklin Room

JOHN J. SHEURING, Junior Past President, IAMFS, *Presiding*

9:00 a.m.—INVOCATION
REVEREND GEORGE HAMPSHIRE, Pastor of Bethany Baptist Church, Fox Chase, Philadelphia, Pennsylvania

9:05 a.m.—ADDRESS OF WELCOME
EDWARD ABBOTT, President, Pennsylvania Association of Milk Dealers
EDWARD WAGNER, Harrisburg Daries, Harrisburg, Pennsylvania

9:15 a.m.—PRESIDENTIAL ADDRESS
CHARLES E. WALTON, *President*, IAMFS

9:30 a.m.—TEAMWORK IN PUBLIC HEALTH TODAY —
DR. L. E. BURNEY, Director of Health Services, Temple University, Philadelphia, Pennsylvania

10:15 a.m.—Break

10:30 a.m.—CHARGE TO NOMINATING COMMITTEE by President Walton

10:45 a.m.—SPACE AGE SANITATION
(In the near future, the classic dimensions of environmental sanitation will have to expand in order to meet problems of space travel, planetary quarantines, and exobiology. Nevertheless, the basic problems of sanitation here on earth are still far from being satisfactorily resolved.)
V. W. GREEN, Principal Scientist, General Mills, Minneapolis, Minnesota

11:45 a.m.—Announcements

12:00 noon—Lunch

AFTERNOON — GENERAL SESSION
Barry-Franklin Room

WM. V. HICKEY, Senior Past President, IAMFS, *Presiding*

1:30 p.m.—Door Prize

1:45 p.m.—Report of Nominating Committee

1:50 p.m.—Symposium —
PUBLIC RELATIONS — IN THEORY AND IN PRACTICE
(Public relations involves communicating information to many different groups factually and accurately and expressed so that it can be easily understood and accepted by people with a limited knowledge of the field.)

1. Theory - MALCOLM GROVER, Safeway Stores, Oakland, California
2. Practice -
   a. Industry - NORMAN MYRICK, Milk Industry Foundation, Washington, D. C.
   b. Public Health - IRVING SCHLAFMAN, Public Health Service, Washington, D. C.

DISCUSSION

3:10 p.m.—Break

3:30 p.m.—TRAINING OPPORTUNITIES FOR THE SANITARIAN
(Many facilities for training the Sanitarian are available - various approaches are discussed by the panel.)

1. *Undergraduate Approach* - HAROLD S. ADAMS, Dept. of Public Health, Indiana School of Medicine, Indianapolis, Indiana
2. *Graduate Approach* - GILBERT L. KELSO, School of Public Health, University of North Carolina, Chapel Hill, N. C.
3. *On-the-Job Training* - B. RUSSELL FRANKLIN, Chief, Training Section, Division of Environmental Health, Dept. of Public Health, Philadelphia, Pennsylvania
4. *Specialized in-Service Training* - RICHARD F. CLAPP, Sanitarian Director, Community Services Training Section, Training Branch, Communicable Disease Center, Atlanta, Georgia

DISCUSSION

4:55 p.m.—Announcements

7:00-9:30 p.m.—Evening Discussion Groups — The evening discussion groups are for the benefit of our members who have special questions or problems and wish to discuss them with others. Group Leaders

have been assigned to the following rooms to answers questions, guide and moderate the discussions. Here's your chance to attend a real "bull session."

7:00 p.m.—MILK SANITATION, Washington Room
DAROLD TAYLOR, J. C. OLSON, HAROLD IRWIN and BRUNO WERRA

7:00 p.m.—FOOD SANITATION, Betsy Ross Room
K. G. WECKEL, H. S. ADAMS, ROBERT ANGELOTTI and W. R. McLEAN

7:00 p.m.—ENVIRONMENTAL SANITATION, Poor Richard A Room
WALTER PURDOM, MARTIN DONOVAN, FRANCIS JACOCKS and JAMES AULT

9:30-10:30 p.m.—Cheese Snack

FRIDAY, OCTOBER 26, 1962

MORNING — MILK SANITATION SESSION

Washington Room

H. K. JOHNSTON, *Chairman*

8:30 a.m.—Door Prize

8:45 a.m.—NATIONAL LABELING COMMITTEE REPORT
M. W. JEFFERSON, Chairman, Virginia State Dept. of Agriculture, Richmond, Virginia

9:05 a.m.—COTTAGE CHEESE PROBLEMS IN PRODUCTION AND SANITATION
(This panel will discuss the attainment of high quality cottage cheese and the various problems concerned with production, quality control and public health aspects.)

(1) Moderator - FRANKLIN BARBER, National Dairy Products, 260 Madison Ave., N. Y., N. Y.
(2) Production (Conventional and Grace System) - - W. C. LAWTON, Twin Cities Milk Products Association, St. Paul, Minnesota
(3) Production (CurdoMatic System) - W. F. MUELLER, Stainless, Inc., Van Nuys, California
(4) Quality Control Problems - L. G. HARMON, Michigan State University, East Lansing, Michigan
(5) Public Health Aspects - T. I. HEDRICK, Michigan State University, East Lansing, Michigan
DISCUSSION

10:15 a.m.—Break

10:30 a.m.—THE FIELDMAN'S RESPONSIBILITIES IN QUALITY AND PROCUREMENT
(The dairy plant fieldmen hold a key position in the dairy industry in their responsibility for milk supply needs, quality control, to the enforcement agency, and the maintenance of public relations for their organization and the industry)
EARL O. WRIGHT, Extension Dairyman, Iowa State University, Ames, Iowa
DISCUSSION

11:00 a.m.—ADMINISTRATION PRACTICES IN A TOTAL MILK CONTROL PROGRAM
(Proper administration leads to well developed total milk control programs)
JAMES WHITE, Cornell University, Ithaca, New York

11:40 a.m.—ACTIVITIES OF THE NATIONAL MASTITIS COUNCIL, INC.
ROBERT W. METZGER, Dairyman's League, Syracuse, N. Y.

12:00 Noon—Lunch

MORNING — FOOD SANITATION SESSION

Betsy Ross Room

EARL COOK, D.V.M., *Chairman*

8:30 a.m.—Door Prize

8:45 a.m.—THE DEVELOPMENT OF MICROBIOLOGICAL STANDARDS FOR FOODS
MORRIS SHIFFMAN, Chief, Milk and Food Section, City Health Department, Philadelphia, Pennsylvania
DISCUSSION

9:30 a.m.—THE FOOD SERVICE CONSULTANT
(This paper will classify the various categories of "Food Service Consultants" and provide criteria for responsibilities of their functions)
F. O. CARPENTER, Director, Operations Headquarters Staff, Slater Food Service Management, Philadelphia, Pennsylvania
DISCUSSION

10:15 a.m.—Break

10:30 a.m.—THE FOOD SERVICE INDUSTRY AND ITS RELATION TO THE CONTROL OF FOOD-BORNE ILLNESS
CYRIL L. KEGLER, President, Bishop-Stoddard Cafeteria Co., Cedar Rapids, Iowa
DISCUSSION

11:20 a.m.—PRESERVATION AND MAINTENANCE OF FOOD QUALITY AND LIGHTING STANDARDS FOR FOOD ESTABLISHMENTS

C. L. CROUCH, Illuminating Engineering Society, New York, New York
DISCUSSION

12:00 Noon—Lunch

MORNING — ENVIRONMENTAL SANITATION SESSION
Barry-Franklin Room

KARL MASON, *Chairman*

8:30 a.m.—Door Prize

9:00 a.m.—PLANNING AND OPERATION OF THE TOTAL SANITATION PROGRAM
WALTER PURDOM, Director, Division of Environmental Health, City Health Department, Philadelphia, Pennsylvania
DISCUSSION

9:40 a.m.—ENVIRONMENTAL SANITATION SURVEYS
(Two types of training courses for and the conduct of Environmental Health Surveys are discussed, a resume of surveys already accomplished, those presently in operation, and a look into the future.)
FRANCIS A. JACOCKS, Sanitary Engineering Consultant, Public Health Service, Kansas City, Missouri
DISCUSSION

10:20 a.m.—Break

10:35 a.m.—PROBLEMS IN AIRPORT AND AIRCRAFT SANITATION
(Catering and watering points, sewage removal and disposal, galley sanitation, and insect and rodent control are discussed)
MARTIN C. DONOVAN, Sanitarian, Dade County Department of Public Health, Miami, Florida

11:15: a.m.—THE CONTROL OF PHYSICAL, CHEMICAL AND BACTERIOLOGICAL QUALITY OF SWIMMING POOL WATER
(To insure safe swimming pool water, pools must be properly operated and maintained with certain tests to determine water quality provided)
JAMES, AULT, Director, Sanitation Division, Knox County Health Department, Knoxville, Tenn.

12:00 Noon—Lunch

AFTERNOON — GENERAL SESSION
Barry-Franklin Room

CHARLES E. WALTON, *President,* IAMFS, Presiding

1:30 p.m.—Door Prize

1:40 p.m.—THE SANITARIAN IN PUBLIC HEALTH—A NATIONAL SURVEY
(A report of a National Survey, providing interesting information pertaining to sanitarians)
DR. ISRAEL LIGHT, U. S. Public Health Service, Washington, D. C.

2:10 p.m.—CONTROL OF STAPHYLOCOCCI IN MILK AND FOOD PRODUCTS
(Staphylococci free status is virtually impossible to achieve in food products, yet control of such organisms can be maintained)
J. J. JEZESKI, University of Minnesota, Minneapolis, Minnesota

2:40 p.m.—A NEEDED YARDSTICK
(Techniques for evaluating vector control measures)
ELDON P. SAVAGE, C.D.C. Activities, State Clinic, Lebanon, Pennsylvania

3:10 p.m.—Break

3:20 p.m.—ANNUAL BUSINESS MEETING
(1) Executive Secretary's Report, H. L. THOMASSON
(2) Financial Report, H. L. THOMASSON
(3) Presentation and Recognition of Committee Reports
(4) Report of Activities of the Sanitarian Joint Council, PROFESSOR HAROLD S. ADAMS, IAMFS, Representative
(5) Old Business
(6) New Business
(7) Election of Officers
(8) Announcements

7:00 p.m.—ANNUAL AWARDS BANQUET
Ballroom
CHARLES E. WALTON, *Presiding President,* IAMFS
PRESENTATION OF AWARDS
WM. V. HICKEY, Senior Past President, IAMFS, Chairman of Committee on Recognition and Awards
(1) Past-President Award
(2) Citation Award
(3) Sanitarians Award
INSTALLATION OF OFFICERS
ENTERTAINMENT

SATURDAY, OCTOBER 27, 1962

MORNING — GENERAL SESSION
Ballroom

RAY BELKNAP, *President-Elect,* IAMFS, Presiding

8:45 a.m.—Door Prize

9:00 a.m.—UP IN THE AIR
(The relationship of airborne microbiology to

environmental sanitation is complex, involving basic knowledge of biology, engineering, statistics, and technology. Sanitarians must become aware of recent developments in the field)
V. W. GREEN, Principal Scientist, General Mills, Minneapolis, Minnesota

9:40 a.m.—THE CONSUMER LOOKS AT LABELING
MRS. ANNE R. THOMAS, Consumer Consultant, District Federal Food and Drug Administration, Philadelphia, Pennsylvania

10:20 a.m.—Break

10:35 a.m.—MILKING MACHINES — THE DAIRY SANITARIAN'S TROUBLE
(Proper operation of milking machines can eliminate problems that plague the Sanitarian)

(1) "The Problem", IVAN PARKIN, Dairy Specialist, Pennsylvania State University, University Park, Pennsylvania

(2) Mastitis, Nature and Prevention, SAMUEL *B.* GUSS, Veterinary Science Center, Pennsylvania State University, University Park, Pennsylvania.

(3) New Concepts and Operation of Milking Machines, STEPHAN B. SPENCER, Extension Dairyman, Pennsylvania State University, University Park, Pennsylvania

11:50 a.m.—ANNOUNCEMENTS

12:00 Noon—ADJOURNMENT

12:30 p.m.—LUNCH

2:00 p.m.—EXECUTIVE BOARD MEETING

2:00 p.m.—COMMITTEE MEETINGS

COMMITTEES

1. Committee on Communicable Diseases Affecting Man — DR. STANLEY HENDRICK, Des Moines, Iowa, Chairman

2. Committee on Professional Development of Environmental Sanitarian — DAROLD TAYLOR, Washington, D. C.; SUMNER MORRISON, Fort Collins, Colorado, Co-Chairman.

3. Committee on Ordinance and Regulation — Pertaining to Milk and Dairy Products, DONALD H. RACE, Syracuse, N. Y., Chairman

4. Committee on Membership — HAROLD WAINESS, Chicago, Illinois, Chairman

5. Committee on Sanitary Procedures — D. B. WHITEHEAD, Jackson, Mississippi, Chairman

6. Committee on Dairy Farm Methods — A. K. SAUNDERS, Mundelein, Illinois, Chairman

7. Committee on Food Equipment — KARL K. JONES, Indianapolis, Indiana, Chairman

8. Committee on Frozen Food Sanitation — FRANK E. FISHER, Indianapolis, Indiana, Chairman

9. Committee on Baking Industry Equipment Standards — VINCENT T. FOLEY, Kansas City, Missouri, Chairman

10. Committee on Research Needs and Applications — W. C. LAWTON, St. Paul, Minnesota, Chairman

11. Committee on Applied Laboratory Methods — O. W. KAUFMAN, East Lansing, Michigan, Chairman

12. Committee on Journal Management — HAROLD S. ADAMS, Indianapolis, Indiana, Chairman

PROCEDURES GOVERNING THE COOPERATIVE STATE-PHS PROGRAM FOR CERTIFICATION OF INTERSTATE MILK SHIPPERS[1]

The sanitary quality of milk shipped interstate as well as intrastate has been a matter of concern to receiving areas for many years. In 1946, the Conference of State and Territorial Health Officers requested the United States Public Health Service to develop a plan for the certification of interstate milk shippers. Such a plan was developed and submitted to the States; however, at the time, few States were able to undertake the additional responsibilities involved. In 1949, the Association of State and Territorial Health Officers again requested the Public Health Service to assist the States with the problem. Similar demands were made by State health departments and State agricultural departments, local health officials and representatives of the milk industry. In December 1949, representatives of several midwestern States met in Indianapolis for the purpose of discussing the problem and of determining whether some plan could be set up to deal more effectively and efficiently with the interstate milk problem. As a result, representatives of eleven midwestern States met in Chicago, Illinois, in February 1950 to investigate the problem and to arrange for a national conference.

This committee requested the Surgeon General to invite all States to have their representatives attend a national conference at St. Louis, Missouri, June 1, 1950. Representatives of industry, State health departments, and State agricultural departments of 26 States attended and participated in the meeting. As a result of group discussions and joint planning, certain basic conclusions and procedures were established to be used in developing and administering a voluntary interstate milk shipper certification program that would provide regulatory agencies with reliable data on sources of high quality milk which could be used to supplement local supplies when needed.

The procedures accepted by the First Conference in 1950 have been used to advantage by many States in developing sound, and more uniform, milk sanitation programs. They have also led to the development of a greater degree of reciprocity between States on acceptance of inspection and laboratory results. These procedures have also been used by many States as a basis of programs for the supervision and certification of intrastate milk sources, and have assisted many States and municipalities to secure better milk supplies for their people.

Subsequent National Conferences were held in 1951, 1952, 1953, 1955, 1957, 1959, and 1961 to evaluate the progress achieved under the cooperative program, to make constructive improvements, and to clarify operating procedures. The procedures governing the Cooperative State-PHS Program for Certification of Interstate Milk Shippers follows:

Section 1. Standards

A. *Milk Sanitation Standard.*

1. The *Milk Ordinance and Code—1953 Recommendations of the Public Health Service*, PHS Publication No. 229 (Third Printing), without footnotes except as noted in C, 1, b, of this Section of these agreements and the *Sanitation Ordinance and Code for Dry Milk Products Used in Grade A Pasteurized Milk Products—Recommended by the Public Health Service*, shall be used as the basic sanitation standards in making milk sanitation compliance ratings of interstate milk shippers.

B. *Rating Procedures.*

1. The procedures outlined in *Methods of Making Sanitation Ratings of Milksheds*, PHS Publication No. 678, recommended by the Public Health Service shall be used in determining compliance with the sanitation provisions and enforcement procedures of the *Milk Ordinance and Code.*

C. *Laboratory Procedures.*

1. Laboratory procedures used to examine milk and milk products of interstate milk shippers shall conform to the procedures in the latest edition of *Standard Methods for the Examination of Dairy Products* published by the American Public Health Association.
   a. Where alternate methods for making bacterial estimates of raw milk for pasteurization are permitted by *Standard Methods*, the standard plate count, simplified methods for viable counts, or the direct microscopic count may be used.
   b. After October 1, 1961, all shippers utilizing the methylene blue test will be so indicated on the list of "Sanitation Compliance Ratings of Interstate Milk Shippers," published quarterly by the Public Health Service, since raw milk examined by the methylene blue test conforms with the requirements of the *Milk*

[1]Adopted by the Eighth National Conference on Interstate Milk Shipments, April 6, 1961.

Ordinance and Code—1953 Recommendations of the Public Health Service.

SECTION II. SUPERVISION

A. *Supervision Requirements.*

1. Supervision of the milk supply to be rated for interstate certification shall be based on the criteria and procedures for Grade A standards set forth in the *Milk Ordinance and Code* or regulations pertaining to supervision substantially equivalent thereto.
2. The milk supply to be rated shall be under the full-time supervision of:
   a. Local health department personnel.
   b. State health department personnel.
   c. State agriculture department personnel.
3. Laboratory examinations are a fundamental and basic component of supervision. Samples from each dairy farm and each pasteurization plant shall be examined at the frequency prescribed in the *Milk Ordinance and Code.*

SECTION III. RATING AND CERTIFICATION

A. *Procedure for Requesting a Milk Sanitation Rating Survey.*

1. A shipper desiring a rating of his supply for the purpose of interstate certification shall submit a request to the State milk sanitation rating agency in his own State.

B. *Compliance and Enforcement Ratings Required.*

1. Ratings to be made on each shipper who desires certification shall include:
   a. Sanitation compliance ratings on producing farms, receiving stations, and/or pasteurization plants.
   b. Enforcement rating of the supervising agency.

C. *Milk Sanitation Rating Personnel.*

1. Milk sanitation compliance and enforcement ratings shall be made by qualified State milk sanitation officers who:
   a. Have been standardized and certified by the Public Health Service as State milk sanitation rating officers, and hold a currently valid certificate of qualification.
   b. Do not have direct responsibility for the routine inspection and enforcement of the supply to be rated.

D. *Area Ratings.*

1. Area ratings for the purpose of certification shall be made at a frequency of not less than once every twenty-four months, but not more often than semiannually, and such area ratings shall be valid for a maximum of twenty-four months for the purpose of listing as described in G of this Section.
2. If a shipper's supply is included in an area rating which is 90% or more, the shipper may be listed without an individual rating, provided, however, that an individual rating shall be furnished upon request of the receiving State or local jurisdiction.

E. *Individual Ratings.*

1. If a shipper's supply does not qualify for certification under an area rating, as described in D above, an individual rating shall be made. Individual ratings shall be made at a frequency of not less than once every twenty-four months, but not more often than semiannually.

F. *Denial of Ratings.*

1. Requests for ratings of supplies which are not under supervision as described in Section II, shall be denied.

G. *Publication of Ratings.*

1. The sanitation compliance ratings of the milk supplies of all certified interstate shippers shall be published at least quarterly as a list, "Sanitation Compliance Ratings of Interstate Milk Shippers." The enforcement rating of the supervisory agency shall also be published in the list opposite the interstate shipper's compliance rating. (Refer to Section VI, B.)
2. No interstate shipper's sanitation compliance rating shall be published without the written permission of the shipper concerned. Such written permission shall be forwarded to the State milk sanitation rating agency.

SECTION IV. UNIFORM BILL OF LADING AND SEALS

A. *Bill of Lading.*

1. All interstate shipments of milk must be accompanied by copies of a uniform bill of lading which includes the following information:
   a. Shipper's name and address.
   b. Point of origin of shipment.
   c. Consignee's name and address.
   d. Delivering carrier, and vehicle number.
   e. Milk tanker identity number.
   f. Weight of product.
   g. Name and grade of product.
   h. Seal numbers on inlet and outlet.
   i Butterfat content and temperature of product.
   j. Date of shipment.
   k. Name of person loading and sealing milk tanker.
   l. Name of official supervisory agency.
   m. Any other information required by Interstate Commerce Commission.
2. In cases where uniform bills of lading are not

required by the Interstate Commerce Commission, letters of certification, containing the information required in A, 1, a-1, above, may be used in lieu thereof.

3. One copy of the bill of lading or letter of certification shall be retained by the consignor, one by the common carrier and at least three (3) copies shall be delivered to the consignee with the shipment. The consignee shall forward two (2) copies to the local health authority, or State authority, in the receiving area, of which one copy bearing the following information shall be returned to the official supervisory agency designated on the bill of lading:
   a. Date and time of arrival of product.
   b. Temperature of product.
   c. Bacterial count of product.
   d. Adequacy of seals.
   e. Other pertinent information.
4. Entries made on bills of lading by consignors or consignees shall be legible.
5. When the interstate shipment is derived from more than one point of origin, separate bills of lading or letters of certification for each of the sources involved shall accompany the shipment.

B. *Seals.*

1. All shipments shall be sealed at the time of loading to prevent unauthorized additions or withdrawals. Such seals shall be single use, consecutively numbered, and show the name and grade of the product, and identity of the shipper.

SECTION V. RESPONSIBILITIES OF PARTICIPATING STATE AGENCIES

A. *Reporting of Rating Results.*

1. The State milk sanitation rating and certifying agency of the shipping State shall certify the results of ratings of each interstate milk shipper's supply to the appropriate Public Health Service regional office which in turn, will transmit the ratings to the Public Health Service Headquarters Office for inclusion in the published list. (Refer to Section VI., B.) The rating results, together with other pertinent information shall be forwarded on an appropriate form (Form PHS-1659).
2. If both an area rating and an individual rating are available on an individual supply of milk, the most recent rating of the two shall be reported.
3. When the sanitation compliance status of a listed shipper's supply changes, as a result of a new rating made within the twenty-four month eligibility period, the most recent rating, including enforcement rating, shall apply, and shall be submitted to the Public Health Service.
4. When a certified interstate shipper's supply, raw or pasteurized, changes status because of degrading, permit revocation, or change in sanitation compliance, the shipping State shall immediately notify all known receiving States and the Public Health Service.
5. Receiving States shall notify shipping States of any irregularities in the supply received. (Refer to Section VII.).
6. The State milk sanitation and certifying agency shall furnish supervisory agencies with interpretations of the *Milk Ordinance and Code* and rating procedures received from the Public Health Service.
7. The State milk sanitation rating and certifying agency shall keep current the ratings of all certified shippers' supplies within its State.

B. *Volume Control.*

1. The State milk sanitation and certifying agency in each shipping State shall maintain a complete record of volume control, either directly or through designated agencies, which shall be audited periodically. This record shall include monthly reports for each shipper on:
   a. Total amount of Grade A milk received.
   b. Source or sources from which Grade A milk was received.
   c. The subsequent utilization of the Grade A milk received.
   d. The number of milk producers added or deleted.

C. *Laboratory Control.*

1. The appropriate State laboratory agency shall approve milk laboratories which perform examinations of the milk and milk products of certified interstate milk shippers. Such approval shall be based on laboratory surveys made at least biennially and by implementation of an acceptable split-sample program. Laboratories to be approved by the State laboratory agency include both official and officially designated laboratories.
   a. Laboratory surveys.
      (1) A survey of milk laboratories must include a visit to the laboratory, at which time evaluation of quarters, equipment, procedures, results, and records shall be made on appropriate forms to be provided by the Public Health Service or equivalent forms. In surveying the milk laboratory, the State agency shall determine if the laboratory is complying substantially with the latest edition of *Stand-*

ard Methods for the Examination of Dairy Products.

b. Split-sample program.

(1) In addition to the laboratory survey made at least biennially, the State laboratory agency shall split samples at least twice per year with the local laboratory. An acceptable split-sample program shall consist of the following:

(a) When a laboratory program is concerned with both raw and pasteurized milk, a minimum of ten (10) to twelve (12) split samples shall be analyzed each six months by all methods for which the laboratory is approved. Such samples shall represent all types of milk and milk products certified for interstate shipment and shall include samples yielding both high and low as well as normal results.

(b) When the laboratory program is concerned only with raw milk for pasteurization, a minimum of five (5) to six (6) split samples shall be analyzed each six months.

(c) When splitting samples with participating laboratories, the State laboratory agency periodically should include some duplicate samples.

2. Officially designated milk laboratories utilized by the supervisory agency must be approved by the State agency in the same manner as described for official laboratories. "Officially designated" laboratories are private laboratories authorized to do official work by the supervising agency, or a milk industry laboratory similarly officially designated for the examination of Grade A raw milk for pasteurization.
3. A copy of all survey forms and duplicate copies of the narrative report completed by the State laboratory approval agency, in approving laboratories who examine the milk of certified shippers, together with supporting data of the results of split samples, shall be sent to the appropriate Public Health Service regional office.
4. The State laboratory approval agency shall issue a certificate to those laboratories that it has approved, which certificate shall be returnable upon expiration or revocation.
5. The State laboratory approval agency or State milk sanitation rating agency shall publish annually or semiannually a list of laboratories it has approved, including the date of survey and test or tests for which approved.
6. When a local laboratory is deemed incompetent for such reasons as repeated failure to check closely on split samples or lack of qualified staff, or for some other reason is no longer approved, the State laboratory approval agency shall immediately notify the State rating agency which, in turn, shall notify the shipper or shippers utilizing the non-approved laboratory, that current shipper certification is being withdrawn. The State rating agency shall notify the Public Health Service of such action.

D. *Procedures for Handling Complaints and Challenges of Validity of Ratings.* (Refer to Section VII)

SECTION VI. RESPONSIBILITIES OF THE PUBLIC HEALTH SERVICE

A. *Standardization of Personnel.*

1. The Public Health Service shall standardize the rating procedures of:
   a. Public Health Service regional personnel.
   b. State milk sanitation rating officers.
2. The Public Health Service shall publish a list of State milk sanitation rating officers whose rating methods and interpretations of the *Milk Ordinance and Code* have been evaluated and approved by the Service.

B. *Publication of Compliance Ratings.*

1. The Public Health Service shall publish at least quarterly a list of the interstate milk shipper sanitation compliance ratings, together with the enforcement ratings of the supervisory agencies which are certified by the State milk sanitation rating agency. The Public Health Service may issue supplements to the list as required.

C. *Training.*

1. The Public Health Service shall extend to State regulatory agencies and educational institutions assistance in the training of representatives of State and local governmental units, and dairy industry personnel, including milk sanitation rating and milk laboratory personnel.
2. In order to coordinate rating procedures and interpretations, the Public Health Service shall sponsor annual seminars for State milk sanitation rating personnel in each of its regions.

D. *Check Ratings of the Sanitation Compliance Status of Listed Interstate Shippers.*

1. The Public Health Service shall periodically make check ratings of the sanitation compliance status of listed interstate shippers to assure the validity of published ratings.
2. For action to be taken if the Public Health Service check rating indicates listed rating not justified, refer to Section VII, B.
3. The Public Health Service shall periodically

evaluate the inspection and survey the supervisory and rating work of agencies to determine whether milk regulations are being properly interpreted and currently enforced in accordance with the Grade A provisions of the *Milk Ordinance and Code.*

E. *Laboratory Evaluations.*

1. The Public Health Service shall evaluate and approve the laboratory facilities and procedures of State laboratory approval agencies.
2. The Public Health Service shall periodically check survey the milk laboratories of participating States to assure compliance with *Standard Methods for the Examination of Dairy Products.*

F. *Interpretations.*

1. Interpretations of the *Milk Ordinance and Code* and of Public Health Service rating procedures shall be furnished periodically to the State milk sanitation agencies.

G. *Milk Sanitation Ratings of the District of Columbia Interstate Shippers.*

1. The Public Health Service shall conduct milk sanitation and enforcement ratings for interstate milk shippers located in the District of Columbia.

SECTION VII. PROCEDURE FOR HANDLING COMPLAINTS AND CHALLENGES OF VALIDITY OF RATINGS

A. *Complaints from Receiving States and Municipalities.*

1. Complaints as to the sanitary quality of milk being received and challenges of validity of certified ratings shall be made in writing by the receiving State or municipality to the milk sanitation and rating agency of the shipping State, with a copy to the appropriate Public Health Service regional office.
2. The written complaint or challenge shall provide specific and factual information, such as violation of bacterial counts and cooling temperature, adulteration, improper heat treatment, odors, flavors, or non-conformance with other requirements, changes in sanitation status of supply, etc.
3. The milk sanitation certifying agency of the shipping State shall make a preliminary investigation of the complaints within fifteen (15) days and notify the receiving State in writing of the action being taken, with a copy to the appropriate regional office of the Public Health Service.
4. After investigation, and based on the facts disclosed, the shipping State shall:
   a. Notify the receiving State and appropriate regional office of the Public Health Service that the complaint was resolved.
   b. Withdraw the certification of the shipper and notify the receiving State and appropriate regional office of the Public Health Service of such action; or
   c. Make a new rating within sixty (60) days and, with the written permission of the shipper, forward the new rating to the appropriate regional office of the Public Health Service for publication on the next quarterly list of "Sanitation Compliance Ratings of Interstate Milk Shippers." The receiving State shall also be notified of the action being taken by the shipping State.
5. If the milk sanitation rating and certifying agency of the shipping State for any reason cannot make a prompt investigation, or the new rating called for in 4. above, it shall:
   a. Notify the Public Health Service and the State making the complaint. Such notification shall be considered by the Public Health Service as tantamount to withdrawal of the present State certification of the interstate shipper involved.
   b. Notify the shipper involved, and any other interested parties, that in accordance with Conference Agreements, the current State certification is being withdrawn until such time as the complaint may be investigated or a new rating made.

B. *Action To Be Taken if the Public Health Service Check Ratings Indicate Listed Rating Not Justified.*

1. If, as a result of a Public Health Service check rating, it is indicated that a new rating is necessary, the Public Health Service shall notify the State milk sanitation rating and certifying agency in writing that a new survey will be required within sixty (60) days; provided, that if the check rating of the listed shipper's supply is 10 points or greater below the published rating, the State rating officer and the Public Health Service check rating officer shall continue to make a statistically accurate survey in accordance with Conference procedures. Such new ratings shall be used for the purpose of certification and listing of the shipper's supply, subject to the shipper's permission for publication.
2. Should the State milk sanitation rating and certifying agency indicate that it is not in a position to make a new rating within a sixty-day period, the Public Health Service shall direct a letter to the State agency, with a copy to the shipper concerned, notifying it that the shipper

will be deleted from the next list of "Sanitation Compliance Ratings of Interstate Milk Shippers."

3. If the State milk sanitation rating and certifying agency informs the Public Health Service that it is unable to make arrangements for the Public Health Service to check-rate the sanitation compliance status of listed shippers, the Public Health Service shall direct a letter to the State agency, with a copy to each listed shipper in that State, notifying that the names and ratings of all shippers will be deleted from the next list.

SECTION VIII. APPLICATION OF CONFERENCE AGREEMENTS

A. *Products Covered.*

1. Agreements adopted by the National Conference on Interstate Milk Shipments shall apply to both raw milk and raw milk products and to pasteurized milk and milk products.

ANNOUNCEMENT

In conjunction with International Association of Milk and Food Sanitarians Annual Meeting

THE NATIONAL ASSOCIATION OF FROZEN FOOD PACKERS

Will Hold A

Penn.-Del.-Mar.-Va. Seminar on Sanitation (9th of a Series)

BEN FRANKLIN HOTEL

WEDNESDAY, OCTOBER 24, 1962

9:00 A.M. to 4:00 P.M.

PROGRAM

9:00 Participants secure complimentary registration packet.

9:15 EXECUTIVES VIEW SANITATION

Moderator: to be determined

TODAY'S TEAMWORK IS TOMORROW'S PROGRESS — Charles E. Walton, President, International Association of Milk and Food Sanitarians, Inc.

TRIANGULATIONS ON SANITATION, PACKING AND THE OFFICIAL SANITARIAN — Frank E. Fisher, Chairman, IAMFS Committee on Frozen Food Sanitation

PREREQUISITES OF THIS BUYER — ----------, The Kroger Company

OUR POSITION ON SANITATION — A. W. Dutcher, Vice President, Dulany Foods Inc.

10:15 COFFEE BREAK

10:35 RATING YOUR PLANT OPERATIONS
USE OF NAFFP'S MANUAL, "5 STEPS TO SANITARY QUALITY OF FROZEN FOODS" — On the job surveillance with the sanitary control equation, a watch and a thermometer — H. P. Schmitt, NAFFP Research Director, Moderator

"X" IS FOR MIKE — Movie from NAFFP's Loan Library showing what bacteria are, where they live and what to do about them

PLANT LAYOUT AND OPERATIONS — How proper facilities, equipment and operating practices protect your product — Joseph W. Barclay, Superintendent on Prepared Foods, Seabrook Farms Company

THE HUMAN FACTOR — Programing for a greater instinct of sanitary workmanship — Ruth W. Engler, Director, Food Quality Control, Stouffer Foods Corporation

12:15 BREAK — LUNCHEON WILL BE SERVED AT 12:30

1:30 MEETING THE CHALLENGE OF DAILY PLANT SANITATION — Authorities moderated by H. P. Schmitt discuss classes of commodities to develop means for better practices and business growth

SANITARY PRACTICES IN FREEZING FRUITS AND VEGETABLES — Precautions to observe for a quality pack — Dr. G. J. Lorant, Laboratory Manager, Birds Eye Division, General Foods Corporation

SANITARY TECHNOLOGY IN FREEZING PREPARED FROZEN FOODS — Operating know-how that protects the integrity of your label — James K. Cameron, Research Director, Morton Frozen Foods, Division of Continental Baking Company

SANITARY SCIENCE IN CONCENTRATING AND FREEZING CITRUS JUICES — Tailoring technology to the specific product requirement — D. I. Murdock, Staff Bacteriologist, Minute Maid Company

SANITARY PROGRAM FOR FREEZING POULTRY AND SEAFOODS — Designing your program with considerations of the unseen ingredient — Dr. M. F. Gunderson, Associate Director, Bacteriological Research, Campbell Soup Company

2:45 BREAK

3:00 KITCHEN HABITS — Another movie from NAFFP's Loan Library showing personal habits that insure food quality and safety

3:20 FORUM ON SANITATION — Your chance to quiz the technical authorities of this seminar on good processing, bacterial control and sanitary quality of frozen foods

3:50 INDUSTRIAL PROGRESS REPORT ON SERVING THE PUBLIC INTEREST, SAFETY AND WELFARE

4:00 ADJOURNMENT

NEWS AND EVENTS

MANY TIMELY TOPICS ON ANNUAL MEETING PROGRAM

The 49th annual meeting to be held in Philadelphia, October 24-27 offers many timely topics and good variety. The complete program is printed elsewhere in this issue so every member can get full particulars.

There will be five general sessions, the first beginning on Thursday morning. At this session two outstanding speakers will address the meeting. Dr. Leroy E. Burney of Temple University, Philadelphia, and formerly Surgeon General of the U. S. Public Health Service, will deliver a message entitled, *Team Work in Public Health Today.* Dr. Burney has had over thirty years experience as a medical health officer and administrator, has been a state health commissioner and has held many important posts with the Public Health Service. He is admirably fitted to speak on this topic.

Following Dr. Burney, will be Dr. V. W. Green, Principal Scientist for General Mills. Dr. Green is trained in microbiology and has had broad experience in teaching, research and institutional sanitation. His topic, *Space Age Sanitation,* should give the audience a look into problems of the future and what is being done now to try and find answers to them.

In the afternoon, the first portion of the general session will be devoted to *Public Relations* with Malcolm Grover of Safeway Stores sharing the platform with Norman Myrick of the Milk Industry Foundation and Irving Schlafman of the Public Health Service. With this three man panel discussing a lively topic of this kind, audience interest will be great.

Following this will be a panel on *Training Opportunities for the Sanitarian.* All four speakers on this panel have had broad experience in academic and on the job training activities.

On Friday, special section meetings will be held. Milk Sanitation, Food Sanitation and Environmental Sanitation each will meet separately for a discussion of problems peculiar to each activity. These offer those with special work interests an opportunity to meet together for a discussion of new programs and special problems.

On Friday afternoon, a particularly interesting presentation will be heard, given by Dr. Israel Light, Office of Research Development, Public Health Service. This will include results of a nation-wide survey of sanitation personnel, and will include a detailed tabulation of, who these people are, their educational qualifications, age, salary and type of activity in which engaged. This is the first time such comprehensive study has been made of the sanitarian in this country and the facts to be presented will prove of real interest.

Dr. J. J. Jezeski of the University of Minnesota and Mr. Eldon P. Savage will also be heard. Dr. Jezeski will discuss the *Control of Staphylococci in Milk and Food Products,* and Mr. Savage will discuss the *Evaluation of Vector Control Measures.*

This same afternoon the annual business meeting will be held where several important matters will be discussed. Not the least of which is a petition to change the name of the Association.

The annual banquet will be held on Friday evening with two important award presentations to be made. First, the Sanitarian's Award, presented annually to a sanitarian who has done exemplary work in his community and the Citation Award to an IAMFS member who has contributed outstanding service to the Association.

There will be a Saturday morning session when Dr. V. W. Green will talk on the subject, *Up In The Air.* If you have been wondering about the influence of airborne microorganisms, this is an opportunity to hear the latest. Following Dr. Green, two other topics will be covered. The first on, *Consumer Response to Misbranding of Foods, Drugs and Cosmetics* by a representative of the FDA and finally a three member panel discussion on *Milking Machines.*

Here is a meeting that has something of interest for everyone engaged in environmental sanitation. If food is your main interest, there are talks on that subject. If you are a milk and dairy sanitarian, you can listen to speakers well qualified to talk on that phase of sanitary control. If you do general sanitation work, you can listen to four prominent speakers talk on program planning, sanitary surveys, airport sanitation and swimming pool control.

Don't delay, make plans now to attend this important meeting. You will learn new things and make new friends, renew old acquaintances and meet others who have problems like yours. We want the 1962 meeting to be the biggest and best ever and your presence will help make this possible.

DAIRY EXPOSITION AT ATLANTIC CITY FOLLOWS IAMFS MEETING

Judging by the volume of hotel reservations, all signs point to one of the best-attended Dairy Industries Expositions and week of dairy conventions in Atlantic City, October 28-November 2, according to officials of some of the convening associations.

Perry Ellsworth, Convention Manager of Milk In-

dustry Foundation, which meets October 28-31 at the Dennis hotel, reports that all rooms in the Dennis and in the adjoining Shelburne hotel and Empress motel have been booked and current reservations are now rapidly filling other nearby hotels.

Officials of other organizations report that hotel room requests have been unusually heavy, although space is still available in most other hotels. The other conventions include the following:

Dairy Suppliers' Foundation, which meets October 27 at the Ritz Carlton hotel.

Dairy Society International, which meets October 28 at the Ritz Carlton hotel.

American Cottage Cheese Institute, Inc., a new organization which will hold its first meeting October 28 at the Ambassador hotel.

Evaporated Milk Association, which meets October 31 at the Deauville hotel.

National Ice Cream Mix Association, which meets October 30 at the Deauville hotel.

National Association of Retail Ice Cream Manufacturers, which meets October 28-31 at the Chalfonte-Haddon Hall hotel.

International Association of Ice Cream Manufacturers, which meets October 31-November 2 at the Chalfonte-Haddon Hall hotel.

In addition to the above groups which will meet during the week of the Dairy Industries Exposition in Atlantic City, *International Association of Milk and Food Sanitarians will meet October 24-27 at the Ben Franklin hotel in near-by Philadelphia,* and many visitors to this convention are planning to come to Atlantic City at the conclusion of their meeting.

The dairy industries are returning with their annual conventions to Atlantic City for the first time since 1956, and in the intervening six years, many changes have been made in the famous New Jersey resort. New motels have been built, many with indoor heated swimming pools and restaurants and full hotel services. Convention Hall, where the Dairy Industries Exposition will fill seven acres of space, has been completely remodeled, equipped with escalators, and given a new lighting system.

Even though most of the central Boardwalk hotels are rapidly filling, the Atlantic City Convention Bureau reports that rooms are still available in hotels located at the southern and northern end of the Boardwalk and in plenty of off-Boardwalk hotels and motels.

The procedure for securing hotel accommodations during the week of the Exposition and conventions is this:

If you're a member of a convening association, follow instructions from your association's headquarters.

If you're not a member, send your request for rooms to Housing Bureau, 16 Central Pier, Atlantic City, N. J., and indicate several hotel choices and rates you wish to pay. The Housing Bureau will reserve space for you in a hotel or motel, and you'll receive a confirmation directly from the hotel or motel accepting your reservation. If you are not familiar with Atlantic City hotels and their rates, you can request a form from the Housing Bureau which lists all hotels and motels and their costs.

PENNSALT CHEMICALS ACQUIRES THE SHARPLES CORPORATION

Pennsalt Chemicals Corporation announces the acquisition of The Sharples Corporation and its several foreign subsidiaries. Details of the transaction recently consummated were disclosed in the announcement made by William P. Drake, President of Pennsalt. The firm said that Sharples will be operated as a wholly-owned subsidiary. Eugene C. Swift, who has been chief executive officer of Sharples since 1958, will continue as president of Sharples.

The Sharples Corporation, founded in 1915, designs and engineers manufacturing processes which utilize Sharples centrifuges and other precision equipment. Its main office and principal plant are located in Philadelphia; its major foreign manufacturing unit is located in London, England.

The firm's process engineering services and a complete line of high-performance centrifuges are marketed throughout the world with plants and sales offices located in England, France, Germany, Spain, Argentina, Brazil, India and Japan, in addition to operations in the United States.

Principal markets for the Sharples products are in the food and beverage, pharmaceutical, chemical, petroleum and plastics industries. "The excellent reputation that Sharples has in these fields," Drake reported, "complements our own long experience as a chemicals supplier in these and other major industrial markets."

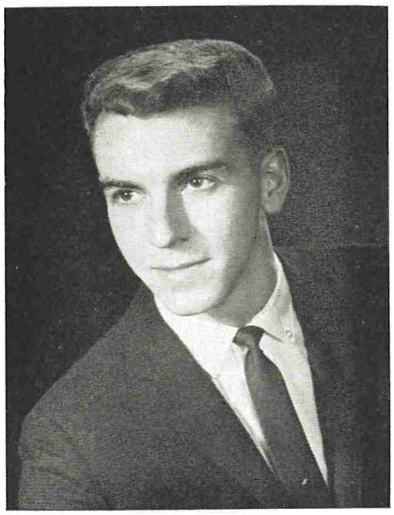
ASSOCIATION EMPLOYS NEW ASSISTANT EXECUTIVE SECRETARY

On August 20, 1962, John D. Simpkins began employment with our Association as Assistant Executive Secretary. Mr. Simpkins is a graduate of Ohio University, Athens, Ohio, where he received his B.S. degree in journalism in June of this year.

The employment of Simpkins culminates a plan which has been under consideration by the Executive Board for about two years. In the fall of 1961, President Charles E. Walton appointed a committee to select a suitable candidate for this new position. Karl K. Jones, Secretary-Treasurer of IAMFS was appointed chairman, H. S. Adams, Associate Editor

was appointed as a member as was Red Thomasson, Executive Secretary.

This selection committee made a thorough canvass of several colleges and universities and received applications from about twenty potential candidates. After a careful review of credentials, Mr. Simpkins was invited to accept employment in the new position, which he did.



John D. Simpkins, graduate of Ohio University and new assistant executive secretary.

He is twenty-two years of age, single and a resident of Athens, Ohio. At Ohio University he was a class officer, editor of the sophomore class magazine and president of Sigma Delta Chi, his fraternity, during his senior year. He made a fine academic record being on the Dean's list in the College of Commerce for four semesters, is a member of Omicron Delta Kappa, and academically finished twenty-second in a class of one hundred and eight.

He has had some practical journalistic experience on the *Athens Messenger*, having been assistant to the circulation manager in 1960-61 and in 1962 was assistant editor of the Ohio University yearbook.

In appointing Mr. Simpkins to this new postion, the Executive Board had several important considerations in mind. First, it was felt that the Association was now sufficiently large whereby a young man, trained in journalism, should understudy H. L. "Red" Thomasson. The Association has much at stake with a large membership, thirty affiliates and a well respected *Journal* which must be issued monthly. Should "Red" Thomasson become incapacited through accident or through some other unforseeable circumstance, the business affairs of the *Association* and the publication of the *Journal* would be seriously impaired with no full time person at the helm.

The second consideration was the *Journal* itself. The Association officers and the Journal Management Committee wish to strengthen this publication. It is desirable to give broader coverage in terms of subject matter. But, in addition, there are other important potentials in terms of journalistic production such as special reports, pamphlets on selected subjects and closer liasion with other associations and societies in the field of environmental sanitation.

It is quite obvious that a certain period of time will be required for Mr. Simpkin's orientation and training. It is believed, with his good background in the field of journalism, that he can bring to the Association and the Journal productive talents which will enhance both strength and growth of the *Association*.

The Association officers and the Journal Management Committee urge each member and each affiliate to lend wholehearted support and cooperation to Mr. Simpkins in his new position with IAMFS.

PAUL CORASH APPOINTED DIRECTOR OF DAIRY INSTITUTE

The appointment of Paul Corash, as Executive Director of the Metropolitan Dairy Institute, Inc., was announced recently, by Frohman Holland, President of the organization.

The Metropolitan Dairy Institute is the public information agency for a majority of the milk distributors in the five boroughs of New York.

Mr. Corash recently retired as Chief of the Milk and Milk Products Division, New York City Department of Health. He has held this post for the past 18 years, and has been a member of the Division for 35 years.

Paul Corash, Director of the Metropolitan Dairy Institute

A native of Worcester, Mass., Mr. Corash attended the University of Massachusetts, with a major in Dairying. He is also a graduate of the New York Law School, and passed the State bar in 1931.

He is a past president of the New York State Milk Sanitarians' Association, of the New York Metropolitan Dairy Technology Society, and of the International Association of Milk and Food Sanitarians. In 1952, he was the first winner of the "Sanitarians' Award", presented by the latter association for outstanding work in this field, and remains an active member of the group's 3-A Committee which promulgates standards for dairy equipment. He has also served as a member of the Milk Advisory Committee for the New York State Public Health Council.

Mr. Corash currently resides at 39-71 Saxon Avenue, in New York City. His new office is at 500 Park Avenue.

COURSE IN INSTITUTIONAL SANITATION PROBLEMS TO BE OFFERED AT SANITARY ENGINEERING CENTER

On December 10-14, 1962, the Public Health Service will conduct a 1-week training course on "Institutional Sanitary Food Service" at Cincinnati, Ohio, presented through the Division of Environmental Engineering and Food Protection. The course is designed for supervisory sanitarians and key administrative personnel responsible for institutional food service operations, especially in schools and hospitals.

The course gives particular attention to some of the unique problems in school lunchroom operations, such as the short work day, frequent employee turnover, and equipment and facilities. Presented also are solutions to special problems in hospitals, such as contamination with pathogenic organisms from contagious disease wards, preparation of special formulas, and the feeding of newborn infants.

A more detailed description of the course is given in the *Training Program Bulletin*, which is available on request. Applications, or requests for information, should be addressed to the Chief, Training Program, Robert A. Taft Sanitary Engineering Center, 4676 Columbia Parkway, Cincinnati 26, Ohio, or to a PHS Regional Office.

NEW POSITIONS

A recent announcement from the State of Connecticut indicates that Eaton E. Smith has been appointed acting chief of the Food Division, Department of Consumer Protection. Mr. Smith succeeds Harold Clark who retired from State Service July 1, 1962.

GEORGE PUTNAM AND EDWARD DELANA RETIRE FROM CREAMERY PACKAGE CO.

The retirement of George W. Putnam, former CP Vice President and Edward K. Delana, former CP Treasurer, was recently announced by E. B. Lehrack, President of The Creamery Package Mfg. Company, Chicago.

Each of the retiring veteran CP officers is well known to the Dairy Industry in his own field of activity.

Mr. Putnam, a graduate from the University of Minnesota College of Engineering, served as a Lieutenant in the Corps of Engineers during World War I and as a member of the Dairy Equipment Advisory Committee to the War Production Board during World War II. After joining CP in 1928 he successively became Director of Research; Director of Research and Development; Vice President and a Director of Creamery Package. Mr. Putnam not only served his Company well, but also made contributions to the scientific development of all dairy processing equipment through his years of untiring committee work on *3A Standards* and other Technical Committees of the Dairy Industries Supply Association and the National Association of Dairy Equipment Manufacturers. Mr. Putnam is active on the Civil Defense Foods Advisory Committee. He is an active member of the International Association of Milk and Food Sanitarians.

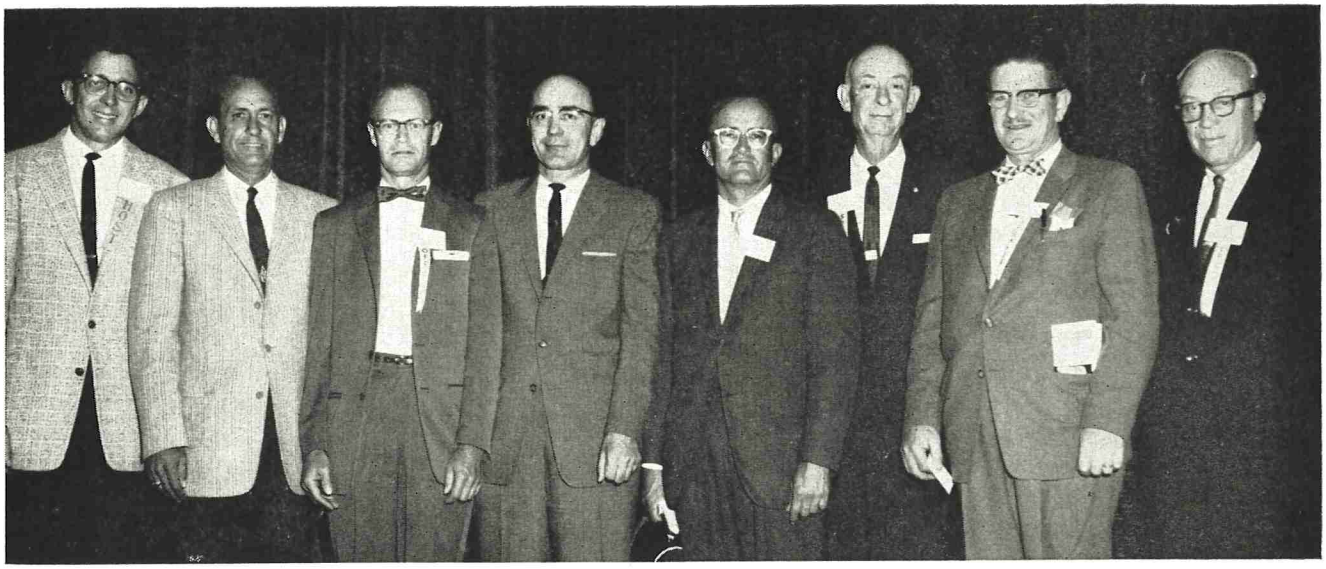
Mr. Delana, a Notre Dame graduate, started with Creamery Package in 1921 as Company Attorney; was elected Treasurer in 1927 and continued in that capacity until 1960. During World War I, Mr. Delana was a pilot in the famous 91st Air Squadron with General George C. Kenny.

WYOMING-COLORADO MEETING HIGHLY SUCCESSFUL

Registered members and guests for the "Wyoming-Colorado Dairy Industries and Milk and Food Sanitarians Conference" held in June at the University of Wyoming, numbered about one hundred and fifty.

Organizations participating in the three-day meeting included the Wyoming Dairy Association, Dairy Council of Wyoming, Colorado Milk Products Association, and Rocky Mountain Association of Milk and Food Sanitarians. The University of Wyoming sponsored the conference with Dr. William R. Thomas of the Dairy Manufacturing Section acting as general chairman. Plans are for the conference to continue as an annual affair to serve as a common meeting ground for various organizations affiliated with the dairy industry of the two-state area.

The 1962 conference was devoted primarily to sub-



Officers of the International Association of Milk and Food Sanitarians and Rocky Mountain Association attending the "Wyoming-Colorado Dairy Industries and Milk and Food Sanitarians Conference" were (left to right) Dr. William R. Thomas, Professor of Dairy Manufacturing, University of Wyoming, Laramie, and 1st Vice-President, R.M.A.M.F.S.; William S. Trobaugh, Milk Sanitarian, Denver Health and Hospitals, Denver, Colorado, and 2nd Vice-President, R.M.A.M.F.S.; Frank Yatckoske, Sanitarian, Colorado Department of Agriculture, Denver, and Secretary-Treasurer, R.M.A.M.F.S.; Michael Purko, Director of Laboratories, Wyoming Department of Agriculture, Laramie, and Immediate Past-President, R.M.A.M.F.S.; Edward Cruz, Sanitarian, Las Animas-Huerfano Health Department, Walesburg, Colorado, and President-Elect, R.M.A.M.F.S.; "Red" Thomasson, Executive Secretary, International Association, and Editor, Journal of Milk and Food Technology; Charles Walton, Health Officer, Laramie, Wyoming, and President, International Association; Bill Hickey, Field Consultant, Public Health Committee, Paper Cup and Container Institute, New York, New York, and Senior Past President, International Association. Missing is Everrett Cole, Biological Research Lab., Arvada, Colorado, and President, R.M.A.M.F.S.

jects dealing with the fluid milk industry. Themes of future conferences will alternately deal with other phases of the dairy industry.

The conference was climaxed by a two-day family outing at the University Recreation Camp nestled in the Snowy Range Mountains near Centennial, Wyoming. Various recreational activities were enjoyed by young and old alike with angling for the famed rainbow trout heading the list. The adult fishing derby, although more sophisticated, was overshadowed by the "hook, line and sinker" tactics employed by the kiddies. A specially prepared pond near the main camp lodge was stocked with 500 rainbow and reserved for children. The departing words of those attending the conference were "Let's get together again."

DR. JAMES SCATTERDAY OF FLORIDA PASSES

Dr. James E. Scatterday, 52, Director of Florida's State Board of Health Division of Veterinary Public Health for fourteen years, died Friday, July 13, 1962, of a heart attack at his home.

Dr. Scatterday was born December 18, 1909 in Worthington, Ohio. He obtained his Doctorate of Veterinary Medicine at Ohio State University in 1933 and his Master of Public Health at Johns-Hopkins in 1951. In 1951 he received his American Board of Veterinary Public Health. From 1933 to 1944 he was engaged in private practice in Ohio, Missouri, and Florida and was with the U. S. Department of Agriculture in animal disease eradication work. From 1944

Dr. James E. Scatterday, until his recent death, Director of the Division of Veterinary Public Health for the Florida State Board of Health.

to 1946 he was veterinarian for the City of Gainesville, Florida and the Alachua County Health Department. He joined the Florida State Board of Health in 1946, and served as director of the division of veterinary public health from its inception in 1948 until his death.

Dr. Scatterday was a member of Governor Leroy Collins' Brucellosis Eradication Comittee. He was the Florida State Board of Health's representative to the Florida Department of Agriculture's Bureau of Animal Industry. He also served as representative for the Florida Veterinary Medical Association to the Florida State Board of Health.

He was married to Naomi Warner of Mt. Sterling, Ohio, in 1936. They have no children. International regrets the passing of this able scientist and wishes to convey sincere condolences to his wife and to his fellow workers in Florida and elsewhere.

CALENDAR OF MEETINGS

1962

Sept. 3-7—XVI International Dairy Congress, Copenhagen, Denmark.

Sept. 5-7—Iowa Milk and Ice Cream Mfgrs., Associations, Workshop Outing, The New Inn, Lake Okoboji, Iowa. Administrative Officer, John H. Brockway, 710 Fifth Ave., Des Moines, Iowa.

Sept. 10-11—Wisconsin Ass'n. Milk and Food Sanitarians, Annual Meeting. Dell View Hotel, Lake Delton, Wisconsin. Administrative Officer, L. Wayne Brown, 421 Chemistry Bldg., University of Wisconsin, Madison 6, Wisc.

Sept. 10-12—Association of Ice Cream Mfgrs. of New York State, Annual Meeting, Whiteface Inn, Whiteface, N. Y. Administrative Officer, Peter F. Rossi, 405 Lexington Ave., New York 17, N. Y.

Sept. 11-13—University of Minnesota, Dept. of Dairy Industries, Dairy Products Institute Meeting, Dairy Industries Bldg., St. Paul Minnesota. Administrative Officer, S. T. Coulter, Head, Dept. of Dairy Industries, University of Minnesota, St. Paul 1, Minn.

Sept. 12-13—National Dairy Council Board of Directors Meeting, Sheraton-Chicago Hotel, Chicago, Illinois. Administrative Officer, Milton Hult, 111 North Canal Street, Chicago 6, Illinois.

Sept. 17—Wisconsin Creameries Association, Annual Convention, Whiting Hotel, Stevens Point, Wisconsin. Administrative Officer, Oscar Christianson, 1 West Main Street, Madison, Wisconsin.

Sept. 18-20—American Dairy Association Board of Directors & State Managers Meeting, Olympic Hotel, Seattle, Washington. Administrative Officer. M. J. Framberger, 20 N. Wacker Drive, Chicago, Illinois.

Sept. 19-21—National Ass'n. of Dairy Equip. Mfgrs., Members only, Lake Lawn Lodge, Delavan, Wisc. Administrative Officer, John Marshall, 1012 14th St., N. W., Washington, D. C.

Sept. 24—Dairy Mixers, Inc., of Philadelphia, Annual Outing, Aronimink Country Club, Philadelphia, Pa. Administrative Officer, Ernst J. C. Fischer, 2809 W. Queen Lane, Philadelphia 29, Pa.

Sept. 24-26—Cornell Dairy Industry Conference—New York State Ass'n. Milk Sanitarians, Joint Conference. Hotel Niagara, Niagara Falls, N. Y. Administrative Officer, R. P. March, 118 Stocking Hall, Cornell University, Ithaca, N. Y.

Sept. 24-26—American Dairy Association, Board of Directors & State Managers Meeting, Olympic Hotel, Seattle, Washington. Administrative Officer, M. J. Framberger, 20 N. Wacker Drive, Chicago 6, Ill.

September 24-26—National Dairy Council of Canada, Annual Convention, Empress Hotel, Victoria, B. C. Administrative Officer, W. K. St. John, Journal Bldg., Ottawa, Canada.

Sept. 27—Evaporated Milk Association, bi-monthly meeting of the Industry, Builders Club, Chicago, Illinois. Administrative Officer, E. H. Parfitt, 228 N. LaSalle Street, Chicago 1, Illinois.

Oct. 2-3—Minnesota Creamery Operators' and Managers' Association, Annual Convention and Business Sessions, Hotel Lowry, St. Paul, Minnesota. Administrative Officer, Floyd Thompson, 416 New York Building, St. Paul 1, Minnesota.

Oct. 8—California Association Milk and Food Sanitarians, Annual Meeting, Charter House Hotel, Anakeim, Calif. Administrative Officer, Leland Lockhart, Room 7013, 1078 Broadway, Los Angeles 12, Calif.

October 8-12—12th Annual Instrument Symposium and Research Equipment Exhibit, National Institutes of Health, Bethesda 14, Maryland. Administrative Officer, James B. Davis, National Institutes of Health, Bethesda 14, Maryland.

Oct. 9-10—ADA of North Dakota and North Dakota Dairy Industries Ass'n., Joint Annual Meeting, Gardner Hotel, Fargo, N. D. Administrative Officer, Vernon L. Pepple, 819 Avenue B. West, Bismarck, N. D.

Oct. 10-11—Vermont Dairy Industry Association, Annual Meeting and Educational Conference, University of Vermont, Burlington, Vt. Administrative Officer, Henry V. Atherton, Dairy Bldg., Burlington, Vt.

Oct. 10-11—Washington State Dairy Foundation, Statewide Convention, Chinook Hotel, Yakima, Wash. Administrative Officer, Robert J. Keyser, 550 Skinner Bldg., Seattle 1, Wash.

Oct. 11—Dairymen's League Coop. Assn., Inc., Annual Meeting, Onondaga War Memorial, Syracuse, N. Y. (Headquarters — Hotel Syracuse, Syracuse, N. Y.) Administrative Officer, Glenn Talbott, Pres., Hume, New York.

Oct. 13-16—National Automatic Merchandising Association, Brooks Hall, San Francisco, Calif.

Oct. 19-20—Iowa Creameries Association, Iowa Milk Producers Federation, Iowa Milk Driers Ass'n., State Convention, Hotel Roosevelt, Cedar Rapids, Iowa. Administrative Officer, Arthur Kirchhoff, P. O. Box 377, Ames, Iowa.

Oct. 21-24—National Association of Food Chains, Annual Convention, Denver Hilton & Brown Palace Hotels, Denver, Colo. Administrative Officer, Clarence Adamy, 1725 Eye Street, N. W., Washington 6, D. C.

Oct. 24-27—International Association of Milk and Food Sanitarians, Inc. Annual Meeting, Ben Franklin Hotel, Philadelphia, Pennsylvania. Administrative Officer, H. L. Thomasson, P. O. Box 437, Shelbyville, Indiana.

Oct. 28—Dairy Society International, Annual Meeting, Atlantic City, New Jersey. Administrative Officer, George W. Weigold, 1145 - 19th Street, N. W., Washington, D. C.

Oct. 28-Nov. 2—Dairy Exposition, Atlantic City, New Jersey. Administrative Officer, Joseph Cunningham, Dairy Industry Supply Association, 1145 - 19th St. N. W., Washington, D. C.

Oct. 29-31—National Association of Retail Ice Cream Mfgrs., Inc., Annual National Convention, Hotel Haddon Hall, Atlantic City, N. J. Administrative Officer, E. M. Warder, 2223 Detroit Ave., Toledo 6, Ohio.

Oct. 29-31—Milk Industry Foundation, Annual Convention, Dennis Hotel, Atlantic City, N. J. Administrative Officer, E. L. Peterson, 1145 19th St., N. W. Washington 6, D. C.

Oct. 31—Evaporated Milk Ass'n., Industry Meeting, Atlantic City, N. J. Administrative Officer, E. H. Parfitt, 228 N. LaSalle St., Chicago 1, Ill.

Oct. 31-Nov. 2—International Association of Ice Cream Mfgrs., Annual Convention, Chalfonte-Haddon Hall Hotel, Atlantic City, N. J. Administrative Officer, Robert H. North, 1105 Barr Building, Washington 6, D. C.

Nov. 7-8—Wisconsin Cheese Makers' Association, 71st Annual Meeting and 1962 Worlds Championship Cheddar Contest, Northland Hotel, Green Bay, Wisc. Administrative Officer, Joseph J. Bauer, 115 W. Main St., Madison 3, Wisc.

Nov. 8-9—National Creameries Association, Annual Convention, Hotel Lowry, St. Paul, Minnesota. Administrative Officer, Otie M. Reed, 1107 - 19th St. N. W., Washington 6, D. C.

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Nov. 9-10—Missouri Butter and Cheese Institute, Educational Conference and Convention, Missouri Hotel, Jefferson City, Mo. Administrative Officer, W. H. E. Reid, Eckles Hall, Univ. of Missouri, Columbia, Mo.

Nov. 12-14—Grocery Manufacturers of America, Inc., Annual Meeting, Waldorf Hotel, New York, New York. Administrative Officer, Paul S. Willis, 205 E. 42nd Street, New York 17, N. Y.

Nov. 13-14—Purdue University, Animal Science Dept., Dairy Manufacturing Section, Dairy Fieldmens Conference, Memorial Center, Purdue, West Lafayette, Indiana. Administrative Officer, H. F. Ford, Purdue University, W. Lafayette, Indiana.

Nov.14—Purdue University, Animal Science Dept. Dairy Manufacturing Section, Dairy Plant Operators Conference, Memorial, Purdue University, West Lafayette, Indiana. Administrative Officer, H. F. Ford, Purdue University, W. Lafayette, Indiana.

Nov. 14—18th Annual Dairy Technology Conference, Student Union Building, University of Maryland, College Park, Maryland. Administrative Officer, Wendell S. Arbuckle, Dept. of Dairy Science, University of Maryland, College Park, Md.

Nov. 19-20—South Dakota State Dairy Association, Annual Convention, Sheraton Cataract Hotel, Sioux Falls, S. Dakota. Administrative Officer, Ervin Kurtz, Brookings, S. Dakota.

Nov. 19-20—University of Kentucky, Dept. of Dairy Science, Dairy Manufacturing Conference, Campus, Lexington, Ky. Administrative Officer, Dr. A. W. Rudnick, Jr. Lexington, Ky.

Nov. 26-29—Southern Association of Ice Cream Manufacturers, 48th Annual Convention, Americana Hotel, Bal Harbor, Fla. Administrative Officer, Edward J. Koontz, Box 5107, Biltmore, N. Carolina.

Nov. 26-Dec. 1—Sales Training Course for Ice Cream Salesmen, Washington, D. C. Administrative Officer, John F. Speer, 1105 Barr Building, Washington, D. C.

Nov. 27-28—Northwest Association of Ice Cream Manufacturers and Minnesota Milk Council, Annual Convention, St. Paul Hotel, St. Paul, Minn. Administrative Officer, D. T. Carlson, P. O. Box 72, Willmar, Minn.

Dec. 2-4—Western States Dairy Convention, Cosmopolitan Hotel, Denver, Colo. Administrative Officer, C. E. Dunlap, 955 11th St., Denver, Colo.

Dec. 6—Evaporated Milk Association, bi-monthly meeting of the Industry, Builders Club, Chicago, Illinois. Administrative Officer, E. H. Parfitt, 228 N. LaSalle Street, Chicago, Illinois.

Dec. 10-12—Illinois Dairy Products Association, Annual Convention, Conrad Hilton Hotel, Chicago, Illinois. Administrative Officer, M. G. Van Buskirk, 309 W. Jackson Blvd., Chicago 6, Illinois.

Dec. 12-14—Wisconsin Dairy Foods Association, Inc., Annual Convention, Schroeder Hotel, Milwaukee, Wisc. Administrative Officer, A. E. Van Thullenar, 222 S. Hamilton St., Madison 3, Wisc.

Dec. 13—Evaporated Milk Ass'n., Industry Meeting, Sherman House, Chicago, Ill. Administrative Officer, E. H. Parfitt, 228 N. LaSalle St., Chicago 1, Ill.

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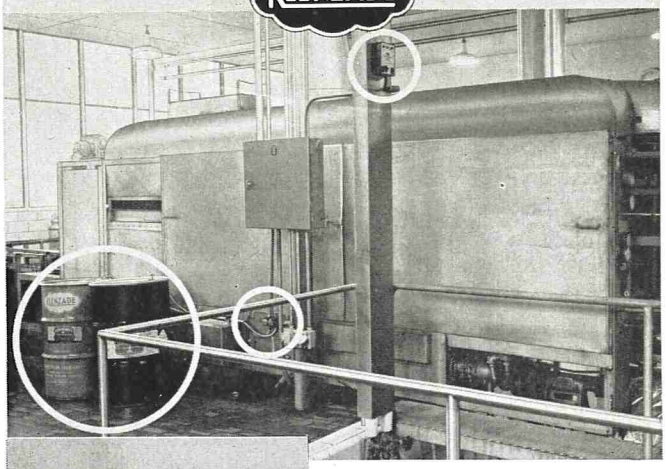

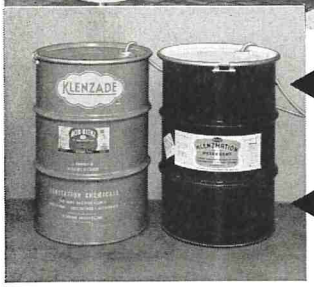

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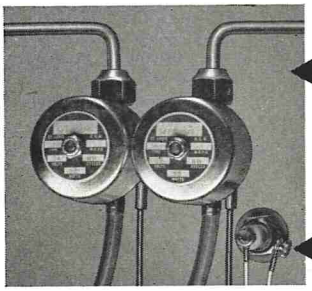

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CONTAINS NO ANIMAL OR VEGETABLE FATS. ABSOLUTELY NEUTRAL. WILL NOT TURN RANCID—CONTAMINATE OR TAINT WHEN IN CONTACT WITH FOOD PRODUCTS.

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ODORLESS—TASTELESS

NON-TOXIC

This Fine Mist-like **HAYNES-SPRAY** *should be used to lubricate:*

SANITARY VALVES
HOMOGENIZER PISTONS — RINGS
SANITARY SEALS & PARTS
CAPPER SLIDES & PARTS
POSITIVE PUMP PARTS
GLASS & PAPER FILLING MACHINE PARTS
and for ALL OTHER SANITARY MACHINE PARTS which are cleaned daily.

The Modern HAYNES-SPRAY *Method of Lubrication Conforms with the Milk Ordinance and Code Recommended by the U. S. Public Health Service*

The Haynes-Spray eliminates the danger of contamination which is possible by old fashioned lubricating methods. Spreading lubricants by the use of the finger method may entirely destroy previous bactericidal treatment of equipment.

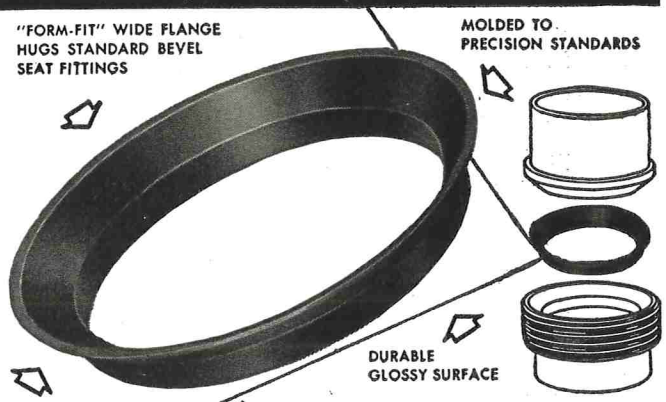
PACKED 6-12 oz. CANS PER CARTON SHIPPING WEIGHT—7 LBS.

THE HAYNES MANUFACTURING CO.
4180 Lorain Avenue • Cleveland 13, Ohio

HAYNES SNAP-TITE GASKETS

"FORM-FIT" WIDE FLANGE HUGS STANDARD BEVEL SEAT FITTINGS

MOLDED TO PRECISION STANDARDS



DURABLE GLOSSY SURFACE

DESIGNED TO SNAP INTO FITTINGS

LOW COST...RE-USABLE

LEAK-PREVENTING

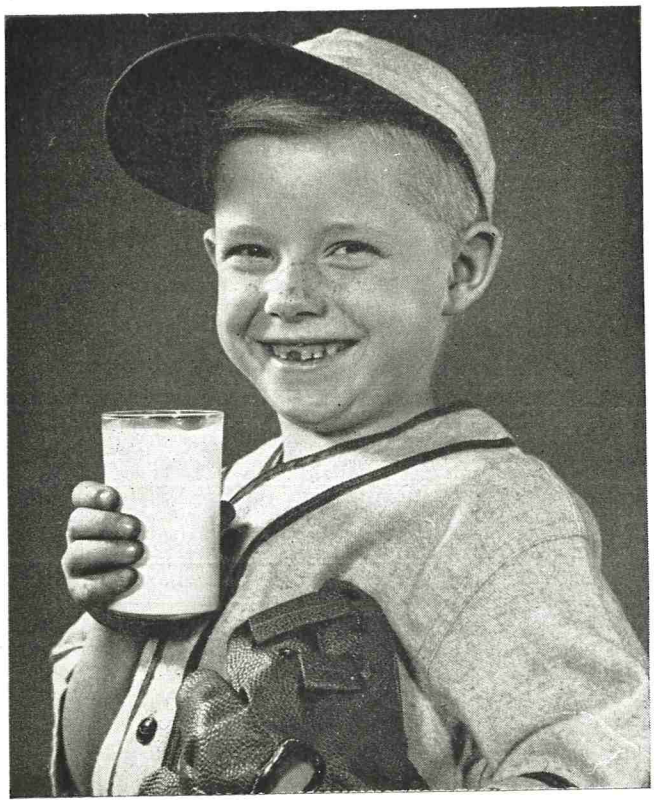
NEOPRENE GASKET for Sanitary Fittings

Check these SNAP-TITE *Advantages*

Tight joints, no leaks, no shrinkage
Sanitary, unaffected by heat or fats
Non-porous, no seams or crevices
Odorless, polished surfaces, easily cleaned
Withstand sterilization
Time-saving, easy to assemble
Self-centering
No sticking to fittings
Eliminate line blocks
Help overcome line vibrations
Long life, use over and over

Available for 1", 1½", 2", 2½" and 3" fittings.
Packed 100 to the box. Order through your dairy supply house.

THE HAYNES MANUFACTURING CO.
4180 Lorain Avenue • Cleveland 13, Ohio



Big Man

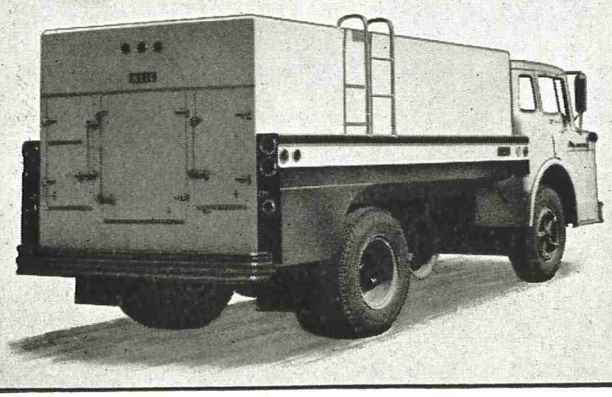
. . . IN YOUR FUTURE AND OURS

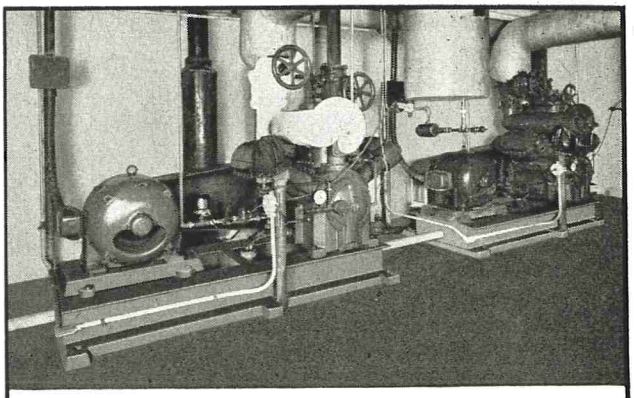
Insuring a dependable supply of pure, fresh milk for growing America is a responsibility Heil shares with you and the entire dairy industry. We take this responsibility seriously, and the record proves it. For over 25 years, Heil has pioneered major advancements in the sanitary design of milk storage and transport tanks. We think it's one important reason why *more milk goes to market in Heil tanks than in all others combined!*

THE HEIL CO.

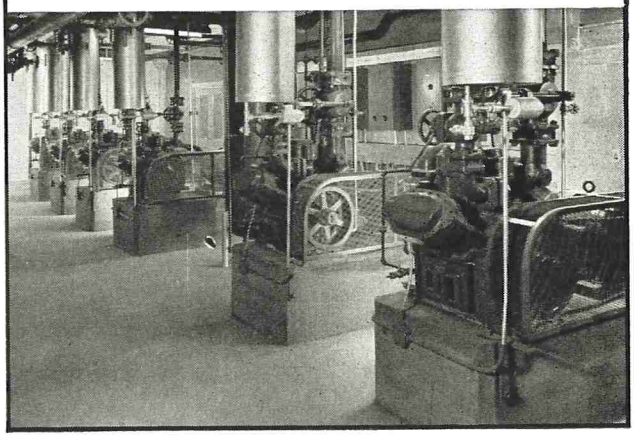
MILWAUKEE, WISCONSIN

New plastic pick-up tank underscores Heil leadership . . . superior insulation for greater protection . . . large-radius corners for easier, more sanitary cleanout.





JOB-ENGINEERED REFRIGERATION



means dependable refrigeration with minimum space and cost

Whether you need a single compressor or a complete multi-stage system, CP has the equipment and the experience to engineer the job to fit your needs—for cooling, storage or low temperature freezings.

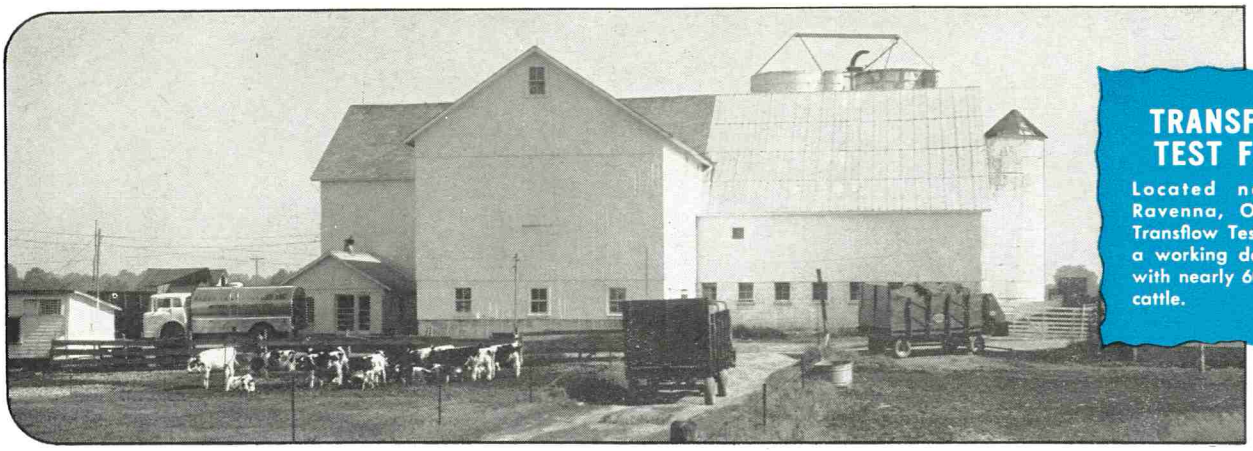
Creamery Package provides you with a complete range of CP Type "K" multi-cylinder compressors and boosters; factory-assembled, compound units and 2, 4 or 6-cylinder "VS" compact compressors . . . plus service coast to coast from 23 Company branches.

Write for Bulletin V-18

THE *Creamery Package*® MFG. COMPANY

A SUBSIDIARY OF St.Regis PAPER COMPANY

General and Export Offices:
1243 W. Washington Blvd., Chicago 7, Illinois
23 Branches Coast to Coast
CREAMERY PACKAGE MFG. CO. OF CANADA, LTD.
267 King St., Toronto 2B, Ontario

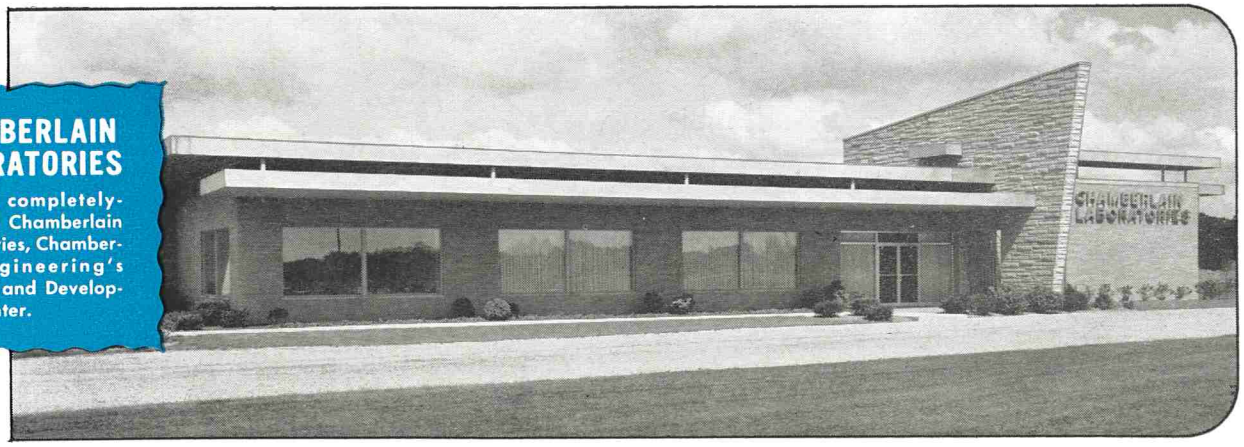


TRANSFLOW TEST FARM

Located north of Ravenna, Ohio, the Transflow Test Farm is a working dairy farm with nearly 60 head of cattle.

TEST FARM and TEST TUBE

TEAM UP TO FIND THE "BETTER WAY"



CHAMBERLAIN LABORATORIES

Modern, completely-equipped Chamberlain Laboratories, Chamberlain Engineering's Research and Development Center.

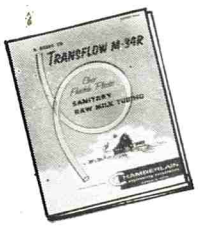
Highly trained engineers and scientists at Chamberlain Laboratories work hand-in-hand with experienced, practical dairy farmers at the Transflow Test Farm to develop products and methods for improving sanitation and for saving time and work on America's dairy farms.

The Test Farm provides a place where new Chamberlain products and methods can be tried under the actual conditions of use. Chamberlain Laboratories supervises the testing and provides the scientific tools to measure results. Work is carried on in close cooperation with state and municipal authorities and with other suppliers to the dairy industry.

What types of work do the labs and test farm carry out? Here's a typical example: Recently a series of tests was conducted in conjunction with leading manufacturers of cleaners and sanitizers to determine the most effective combination of time, temperature and solution concentration for use with TRANSFLOW. Tests were conducted under closely controlled conditions. For example, at the start of each period, new inflations, gaskets, air hose and TRANSFLOW milk tubing were put into service.

Bacteria counts were made daily at Chamberlain Laboratories, the results indicating the relative effectiveness of each method.

Important data of many kinds are flowing from the mutual work of the test farm and the laboratory — data that will make an important contribution toward "better milk with less work."

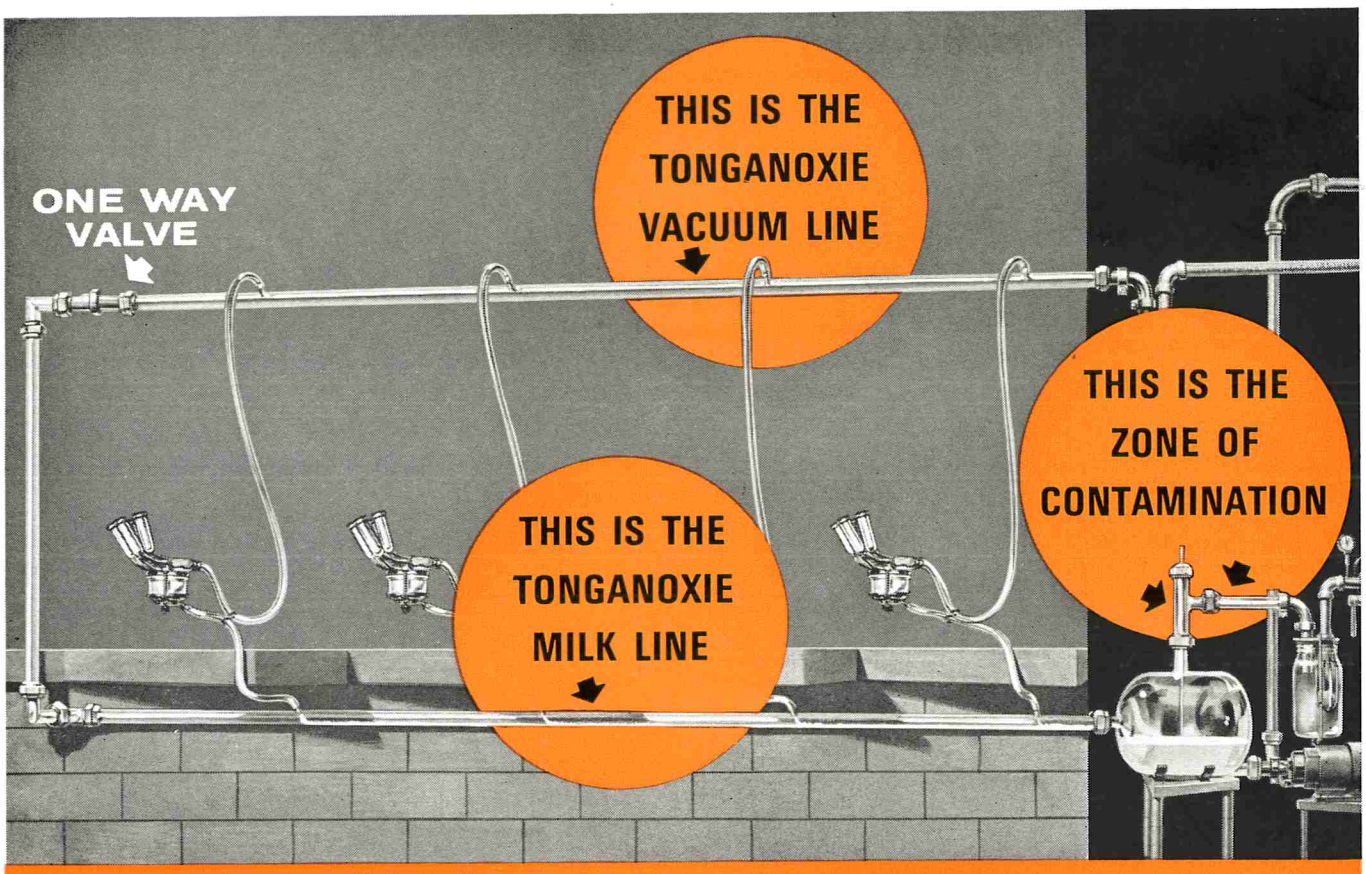


Bulletin RM-60 gives complete information on TRANSFLOW Raw Milk Tubing. For your free copy, write Chamberlain Engineering Corp., Akron 9, Ohio.

1913-A

Plastics and Synthetics Division

CHAMBERLAIN
engineering corporation
AKRON 9, OHIO



TONGANOXIE Milking Systems

clean all 3

every time you wash the milk line

Over the years, dirty vacuum lines have worried a lot of sanitarians. With a TONGANOXIE Milking System, and vacuum-powered washing, *the entire vacuum line is washed every time* the system is washed.

SURGE full-flow power washing puts a milking system about as close to absolute sanitation as possible. A 20-minute flood of swirling, surging cleaning solution washes and sanitizes every square inch of vital pipe surface in the entire system *. . . the vacuum line . . . the zone of contamination . . . and milk line.*

This is TONGANOXIE thoroughness . . . the milking system designed to meet all requirements of sanitarians — and then some.

EASY TERMS

BABSON BROS. CO.
2843 West 19th Street • Chicago 23, Illinois

SURGE