The objectives of a milk workshop has been outlined and the technique of handling it was covered. There were twelve laboratories in the State that participated with six staff members conducting the week's work. The agenda dealt with the fundamentals of milk bacteriology and adhered completely to Standard Methods for the Examination of Dairy Products, Ninth Edition, 1948. Where alternate procedures were allowed the most practical method was agreed upon and accepted as Missouri's Standard Procedure.

Details of certification of milk laboratories were developed.

The National Conference for Interstate Milk Shipments recommended* in June 1950 that states shipping and receiving milk may accept results from state official laboratories and local designated laboratories which have been approved as complying substantially with the American Public Health Association's Standard Methods and checking closely with the results obtained at least twice per year on split samples. The state approval of local laboratories should include an annual visit to the laboratory at which time evaluation of the quarters, equipment, procedures, results, and records shall be made on appropriate survey forms of the United States Public Health Service or the equivalent.

To insure uniformity, the United States Public Health Service shall spot check the laboratories of the state agencies participating in the certification of milk for interstate milk shipments and certify their compliance with Standard Methods.

In an effort to comply with the recommendation of the National Conference for interstate milk shipments, Missouri held its first milk workshop for milk analysts in Columbia, Missouri, November 27 through December 1, 1950. The University of Missouri, Department of Dairy Husbandry, Bacteriology Sections; the Environmental Health Center of the United States Public Health Service; and the Bureau of Laboratories, Missouri Division of Health, cooperated in planning and conducting this workshop. The purpose of such a workshop was to bring the milk analysts in the State together in order to have definite understanding and correct interpretation of Standard Methods for milk examinations and to establish standard methods for Missouri where alternate methods are given in Standard Methods for Examination of Dairy Products, Ninth Edition, 1948.

A questionnaire was submitted to at least thirty milk laboratories in the State which might be involved in checking milk for interstate shipments. These laboratories included local, county, and state public health as well as milk industry laboratories. From this questionnaire there were fourteen favorable replies with twelve laboratories participating. However, they represented areas in the State from where the greatest amount of fluid milk is being handled. This was the first time industry and control laboratories had been asked to work together in standardization of techniques used in determining the sanitary quality of milk.

The workshop was conducted in the Dairy Bacteriology Laboratory of the University of Missouri where ample table space, necessary equipment, and glassware were available.

The staff of the University Department of Dairy Bacteriology including Professor J. E. Edmondson, Mr. Kenneth Tallman, Instructor, and Mr. Robert Jensen, Assistant Instructor, and Mr. William J. Beck, Bacteriologist, and Mrs. Irma C. Adams, Director of the Bureau of Laboratories, State Division of Health, conducted the workshop giving the lecture work, demonstrations, and assistance in the laboratory procedures. Dr. Robert A. Myers, Bacteriologist of the Section of Environmental Sanitation, United States Public Health Service, acted in the capacity of consultant lecturer and coordinator for the discussion periods.

The entire schedule for the week workshop dealt with the fundamentals of milk bacteriology and adhered completely to Standard Methods for Examination of Dairy Products, Ninth Edition, 1948. Where Standard Methods allowed alternate procedures the most practical method was agreed upon after careful consideration, and accepted as Missouri's Standard Procedure.

The following made up the curriculum of the week workshop:

Basic Objectives of Quality Tests on Milk; Sampling Equipment and Procedure; Media Preparation; Apparatus and Technique for making Plate Counts of Milk and Cream; Laboratory Practice of Agar Plate Count; Dye Reduction Tests on Raw Milk; Microscopic Counts on Milk; Laboratory Practice of Calibration of Microscope; Preparation and Staining Films, Counting and Reporting; Laboratory Practice of Counting Plate; Discussion of Spreaders; Pinpoint Colonies; Crowded Plates; Sterility Tests on Containers and Equipment of Milk Plants; Coliform Tests for Milk, Cream, and Chocolate Milk.

It was emphasized that the actual practice of routine tests and checking results against one another were considered of utmost importance. The first plate counts and direct microscopic counts showed upon tabulation a wide deviation and certainly did not check closely or

(Continued on page 84)
Position Open in Milk Control

Dr. Edwin M. Knights, Deputy Health Officer, Providence, R. I., announces that there will be a position open in Providence in the field of milk quality control. The position is that of Director of Quality Control Program, Rhode Island Quality Milk Association, P. O. Box 830, Providence, R. I. Anyone interested is invited to apply to the Association.

The position will be open about July 1, 1951, with a starting salary of approximately $6,000, which might be increased slightly for an exceptional candidate. The Association’s Board of Directors consists of twelve members, with three each representing milk producers, milk distributors, consumer interests, and public health officials.

The following qualifications, suggested by this office, govern the position:

Citizenship: Citizen of the United States.

Education: (1) Bachelor’s degree from a recognized institution of learning in one or more fields in the biological, chemical, or physical sciences, including, but not necessarily limited to, an undergraduate degree in one of the following: dairy science, veterinary medicine, sanitary engineering, or bacteriology.

(2) Master’s degree from an accredited school of public health or in one of the sciences listed in (1) above; provided, that two years of additional experience in milk control practice, public health practice, or dairy science will be accepted in lieu thereof.

Experience: (1) A minimum of eight years of experience in the field of milk sanitation, public health, or dairy science, at least 5 years of which should be in the field of public health control of milk supplies in the employ of a State, large municipality, or the Federal Government.

(2) At least two years of the public health milk control experience indicated in (1) above to be in an administrative or supervisory capacity with a State, municipality or the Federal Government.

Personal Characteristics: Personal qualities should include ability to deal with people, initiative, good judgment, industriousness, integrity, enthusiasm, and good habits.

Missouri Laboratory Certification

(Continued from page 65)

within the desired goal of 10 percent agreement. This was anticipated, and therefore a second day had been scheduled for the agar plate and direct microscopic count technics. The results from these procedures on the second day were exact and in complete agreement on the low count milks and within the 10 percent limit on high count milk.

The plan for certification for milk laboratories in the state has evolved from this working together. Rules and regulations by the Missouri Division of Health will be filed with the Secretary of State. These rules and regulations will cover type of personnel, standard equipment, and the volume of bacteriological milk work necessary to comply. All laboratories will be visited annually and evaluated upon the quarters, equipment, procedures, results, and records. The checking of the performance will be undertaken by shipping split-samples at least twice a year with a total of not less than 50 specimens. The exact handling of these split-samples is in the process of being formulated. It is hoped that a method can be devised of freezing samples in small tin cans and shipped in boxes containing dry ice. Other methods for shipping split-samples such as glass containers will be given careful consideration, and it is hoped that a fair and adequate routine can be established.

The Bureau of Laboratories of Missouri will be evaluated by the United States Public Health Service and shall comply to all standards outlined. By the certification plan as outlined, many laboratories in Missouri will be delegated the responsibility of certifying shipments of milk leaving Missouri.

It is felt that with this beginning and constant vigilance of all, a shipment of milk leaving Missouri will be in close agreement in its bacterial count when received at its point of destination. The same high quality of milk will flow from state to state giving the “Best Quality of Milk for All.”

ATTENDANTS AT MISSOURI COOPERATIVE MILKSHOP

Third row, left to right: N. Ferraez, Thomas Larsen, Dr. I. H. Baird, Robert G. Jensen, Burdet Heinemann


Front row: Colleen Monday, Joseph Edmondson, Dr. Robert Meyers, Kenneth L. Tallman, Wilma Zongler, C. H. Kearney