

THE UNIVERSITY OF WISCONSIN DAIRY DEPARTMENT

BY PROF. H. C. JACKSON

Ladies and Gentlemen: Mr. Whiting stated we ought to be getting on with our program. We are having some fine talks following this one I am going to give, and so I will make my talk short. I have jotted down some things that I wanted to say and I know you will bear with me if I follow my notes rather closely.

Your Secretary has asked me to tell you about the work of the Dairy Department of the University of Wisconsin. It is a pleasure for me to do this, first, because I know that you are interested in what the department is doing, and that many of you have taken courses of study conducted by the department, either at Madison or at other places in the state, and, second because I am so interested in our work and feel that I have something to talk about.

In the first place I want to stress the idea that the members of our department look upon our Dairy School as a service organization. Dr. Glenn Frank, the president of our University, in stressing this idea of service to the state, has preferred to refer to our University as the University of Wisconsin, not a University in Wisconsin. In like manner, we hope that you will think of our department as the Dairy School of Wisconsin, not a Dairy School in Wisconsin. This ideal of service, which our President has envisaged in his statements concerning the function of the University, namely, that it should render the utmost service to the citizens of the state by maintaining a close contact with them and by appreciating fully their problems, has ever been the ideal of the Dairy School staff. Always we have maintained a close contact with the cheese makers of the state, both individually and collectively, through the State Cheese Makers Association. We have welcomed this opportunity of working with you and the producers in advancing the welfare of this important branch of the dairy industry.

During the past seven years this service has been extended by increasing the personnel engaged in the cheese making branch of the industry. The entire time of three members of our staff is devoted to cheese making.

In the main the activities of the school may be classified into three divisions: research, teaching and extension. At this time I will mention briefly what we are doing along these three lines of activities as applied to the cheese industry.

Research

Progress is made in an industry when the findings of the experimentalists are translated into practical plant practice. Constantly new information is being uncovered, both by the research worker in the laboratory and the maker in the factory. Not all of the results obtained in a research laboratory may be of immediate benefit or use

to an industry. However, the discovery which may seem to have no practical application today may tomorrow be utilized to cope with some new problem.

We feel that research work is the foundation on which we should build our teaching and extension programs. Research work is not confined alone to the seeking out of new information concerning a particular process, but may include the searching out of better ways of presenting it in the classroom and in extension service information already available. To be of greatest value scientific knowledge must be presented to the layman in the industry in a usable form. At this time I would like to pay tribute to the late Professor E. H. Farrington, my predecessor, who had unusual ability in systematizing scientific information and making it available to members of the industry and in utilizing such knowledge in developing practical tests that could be employed in plant operations.

During the past few years a number of research problems have engaged the attention of the department. The results that have been obtained are printed in the Annual Report of the Experiment Station, in bulletins, or in scientific journals. Time will not permit a detailed account of each experimental project and the results that are being found. Following are some of the problems that have been studied: The Effect of Standardization upon the Yield and Quality of American Cheddar Cheese; The Development of Acidity in the Manufacture of American Cheddar Cheese; A Study of Methods of Packaging or Otherwise Preparing Natural Cheese for the Retail Market; Factors Affecting the Freezing Point of Cheese; The Composition of Cheese Spreads; Investigation of New Cultures for Use in Cheesemaking with Special Reference to Brick and Swiss Cheese; a Study of Methods of Manufacturing Brick Cheese; A Study of Improved Methods of Making Cream Cheese; Gassy Fermentation in Cream Cheese; A Study of Soft Unripened Cheese; Some Investigations Covering the Effect of Mastitis on the Quality of American Cheese; and A Study of the Composition of Swiss Cheese in Southern Wisconsin.

Teaching

In order to be of utmost service the department has made provision for the needs of all classes of students so that it may be said truly that anyone in the state of Wisconsin wishing to get instruction in any branch of dairying may do so through the different courses offered.

For those who can spend a relatively long period of time in studying at the University, a four year and two year course are offered. In these two courses a student has the opportunity of getting, in addition to the training in dairy manufacturing, instruction in the fundamental sciences of Physics, Mathematics, Bacteriology, and Chemistry. The schedule is quite flexible and if a student desires training in business or engineering, suitable arrangements can be made to accomplish this purpose.

A twelve weeks course is provided for those who for some reason cannot spend a longer time at the University, or for those who cannot meet the long course entrance requirements. The only entrance requirements for this course are that the student must be of good character and must have had at least six months dairy plant experience. This course has been revised considerably during the past few years. Instruction in dairy mechanics, bacteriology (including laboratory work), dairy arithmetic, and milk composition and tests is given in the first six weeks. In the second six weeks period a student may take cheese making for a solid three weeks. This gives as much time in the cheese laboratory as in former years and, in addition, the student has no other work to distract his attention from the study of cheese making. It likewise makes it possible for any cheese maker who has previously had the 12 weeks course to come back any year and take the three weeks course in cheese making, butter making, ice cream making, or market milk. Quite a few former Winter Dairy Course graduates have taken the opportunity of doing this. At the present time forty students are enrolled in this course. Since the beginning more than 5000 students have taken the course.

In addition, two five week courses are given in farm dairying to young men in the Agricultural Short Course who come from farms and who expect to return to them and engage in dairy farming. Last year 59 took the course. It begins this year on November 19th and we are expecting about 180 students.

Many men who cannot leave the factory for a longer period of time find that it aids them in their work to attend the four day course at Madison which is given this year on March 5, 6, 7 and 8, 1935. Last year 126 attended this course.

In addition to the four day course given at Madison a series of short courses for cheese makers are given in the various cheese making districts of the state. These range in length from four days to ten days. All of the dates have not been set for these courses this year, but those of you belonging to the various district associations will learn from your local secretaries as soon as arrangements are complete. Last year 635 men attended these courses.

Extension Service

The extension work of the department consists in cooperating with the industry in solving technical problems that arise in manufacturing and in improving the quality of the cheese that is manufactured. This work is carried on by correspondence, consultation at the department, and visits to plants. Three members of our staff engage in this work, two of whom devote all of their efforts in this phase of work.

At the present time there are two main extension projects dealing with cheese making—the Improvement of the Quality of American Cheddar Cheese, and the Improvement of the Quality of Swiss Cheese.

The Federal Bureau of Dairy Industry cooperates with our department on the Swiss cheese project and furnishes a full time man for this purpose.

In closing, let me state again that it is the desire of the department to continue to be of real service to the industry. With this ideal before us, continual reorganization to meet changing conditions and needs has taken place. New methods of presenting new information in teaching and extension have been worked out. Some of the old courses have been dropped and new ones added; new research projects have been initiated and the personnel dealing with the cheese extension service has been augmented.

CHEESE MAKERS MUTUAL INSURANCE PLAN AND PROGRESS

By JOHN HICKS

Mr. Chairman, Members of the Wisconsin Cheese Makers Association, Ladies and Gentlemen: Last January as I was driving from Appleton to Milwaukee along Highway number 10, I came to a cheese factory. I stopped in to buy some cheese to take home. It was the first factory I was ever in. We got to talking and when he learned I was in the fire insurance business he began telling me about the high rates and the insurance problem in the industry. I was interested. It was new to me, and when I was in Madison a short time later I went into the insurance department to learn what I could about the cheese industry. I was referred to Professor Sammis. I was told he was secretary of the State Association and that he knew more about cheese and the cheese industry than any other man.

Professor Sammis told me that several attempts had been made to get relief from the insurance burden but none of them had been successful. We began to investigate. We accumulated insurance facts and figures from the fire marshal's office and elsewhere and the farther we went the more apparent it became that the only relief to this problem was a cheese makers mutual. A cheese makers mutual was needed. Needing a mutual is one thing and getting a mutual is something else. Getting it depended on how well the industry was organized so that concerted action could be taken. It also depended on how much interest the officers would take in it, and how much they were interested in their work.

I was surprised when I learned that the cheese industry is one of the most highly organized industries in the country. With the thirty branch associations which Professor Sammis has organized throughout the state, with the system of news letters sent out every two weeks whereby the activity of any branch is told about and sent to the other branches, it was very clear that any undertaking properly planned could be successful very easily if the industry wanted it.

Finally, these insurance facts and figures which had been accumulated were taken up with the officers and directors of your state asso-