REPORT OF CHEESE INSTRUCTOR, WITH SUGGESTIONS FOR THE FUTURE.

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During the past season my time was employed in visiting fifty-six factories. I held forty-one meetings and collected in fees $270.

The season was not without peculiarities. First, a protracted drought and a big crop of weeds; next, an unusually long period of extreme heat, with flies and mosquitoes pestering cows worse than ever.

The milk was low in casein, and slimy curds and curds lacking firmness were found everywhere in the curd-test.

As a consequence the milk yielded poorly and, in quality, the cheese was decidedly inferior to that of the year previous, and it has been a hard year on those factorymen who guarantee everything and give a "pound for ten." But, inasmuch as these same people won't learn their lessons until they pass through a similar experience, the results were not without benefit. Factorymen became more teachable and I kept very busy throughout the season.

While much has been done in the past, our field of usefulness seems wider than ever. The average character of our factories is as yet a cause for dismay. The factories which are satisfactory as regards construction, equipment and drainage are exceedingly rare, and we need an officer vested with power to clean or close up the unsanitary ones.

The milk which is furnished to the factories, generally speaking, contains impurities in quantities which preclude excellence in the flavor of the cheese, and the hot curing rooms will not permit of the development of excellence in either flavor or texture.

Those are today our greatest obstacles, against which no amount of skill on the maker's part can prevail.

Mr. G. H. Davis of Chicago, who has been for many years
a prominent dealer in Wisconsin cheese, has this to say about our curing rooms:

"The cheese placed in your average curing rooms will, in hot weather, oil very badly, which is one of the worst conditions cheese can be in, as it makes skims of them, loses weight, and the separation of oil from the curd makes the cheese dry and mealy, which, with age, will crumble when cut. All heated cheese will oil to a greater or lesser extent, and that which passes from the cheese is not the worst evil, as the oil fills all the curd-holes throughout the cheese and will become rancid with age. The texture never mellows down but gets sharp quickly. Cheese having oiled once will oil again much easier with less heat, are liable to get bitter and develop bad flavors."

The milk and the curing rooms have received my special attention during recent years and assurances have come to me in overwhelming numbers to the effect that the quality of the milk was appreciably better after a meeting than before.

The start which has been made in the curing room improvement is still more marked. Some of these have received better insulation, and, in my territory, nearly forty efficient sub-earth ducts have been built. During the past season these ducts were introduced in factories in Shawano, Marathon and Chippewa counties.

That the benefits of the sub-earth duct are no longer considered an uncertain quantity is demonstrated by the fact that approximately one-fifth of the factorymen whom I instructed during the past two years have either constructed them or made preparations to do so next spring.

One of the most perfect factories in the state has been built by F. C. Reineking of Sheboygan county. It is attractive, roomy, and the walls, having four air-spaces, furnish proper insulation to the rooms. Good drainage is also provided.

His flowing well of cold water suggested to me a new plan of furnishing cold air to the curing room, which I persuaded him to carry out at a cost of about $100. The plan in brief is this: A trough 22 feet long, having partitions across it one foot from each end, is placed adjacent to the wall on the outside, and several feet above the level of the floor. This trough contains 20
galvanized iron flues, four inches in diameter, one inch apart, reaching from one partition to the other. That part of the trough occupied by the flues is fed by a constant stream of cold water, which surrounds each flue. The air having access to one end of the flues passes through and empties into an air-chamber at the other end, from whence it is conducted by means of a large pipe through the wall and into the curing room.

In passing through this device the air drops about two feet, which drop, I figure, will create automatic ventilation whenever the air in the flues is colder (and therefore heavier) than that in the curing room.

This factory was not completed until too late in the fall to test the merits of this system of cooling air, but there is no doubt in my mind as to its success.

Among the factors that contribute to the improvement of Wisconsin cheese the field instructor occupies a unique position, because, through the evening meetings at the factories, he can get in touch with many milk producers that cannot be reached in any other manner. For this reason the traveling instructor is indispensable and the great importance of his functions has led me to present my views as to some of the qualifications necessary to make an efficient field instructor.

In selecting timber for instructors in the past the management of this Association has sought men who were thoroughly experienced makers; who had some knowledge of the science of their profession and who could tell what they knew.

It is but a decade ago when practically all of our cheesemakers would have received a world of new ideas had they seen a man so endowed at work in a factory. However, if the instructor of today does not possess considerable persuasiveness as an additional qualification, he will accomplish very little. For, by the aid of the Dairy School and the Cheesemakers' Association, modern ideas are being thoroughly distributed annually and the chances are that when the instructor arrives at a factory he finds the maker in possession of literature describing and illustrating the latest methods.

Therefore, the instructor's widest avenue of usefulness to the
factoryman lies in persuading him to adopt and execute the ideas with which he is already acquainted.

That isn't all. The instructor must have that in his make-up which will enable him to get very close to the milk-producers; he must be able to successfully appeal to them to furnish milk of greater purity; he must be able to induce them to appreciate and demand better curing rooms and cleaner whey tanks; he must be able to point out to them that the practice of pinching the last penny out of the factoryman is ruinous to their own interests; he must be able to illuminate the fact that they are the ones who pay for all the mistakes, no matter where or by whom they are made.

The wisdom of sending out a man nowadays who does not possess the above-mentioned faculties would be questionable.

Experience has taught me that if an instructor can lecture to the patrons in German as well as in the English language, he can achieve more in many Wisconsin communities than if the English alone were at his command.

The instructors' usefulness could be further added to if they were sent out earlier in the season and if they were made available to attend annual meetings at factories where such important questions as "The method of paying for milk" and "The pound for ten system" are disposed of; also if they could be induced to lecture intelligently on such topics as "The difference in value of cows" and "The silo as a factor in reducing the cost of milk production."

The instructor's remuneration should be such as will justify him in thoroughly equipping himself for his task, and unless the terms of the agreement under which he labors are free from all features which may tend to dampen his enthusiasm or discourage strenuous efforts on his part, much will be neglected in the future.