is hoping we will improve the conditions and by close cooperation we
will in the near future have some plans for selling cheese on quality
basis, like butter and most all other merchandise is sold at. This alone
will force our reckless men to come up to the mark, and make this world
a decent place to live in for those that stand for quality.

The field work is just as important as the factory work. You can
send for a book to study, it shows just what to do. But to get the
milk so as you can use those methods, that's where the rub comes in.
It takes a lifetime to do this in some localities. I know of factories
where you can not convince them at all.

"RAISING THE QUALIFICATIONS FOR LICENSES"

By Geo. J. Weigle, Dairy and Food Commissioner of Wisconsin

Mr. Chairman, Ladies and Gentlemen, Members of the Cheese Makers'
Association, I am asked to address you this afternoon on the question
of higher license requirements. Now, I am not going to talk to you on
the question of raising your fees. I am not here for that purpose, but
I am here to advocate higher qualifications for a cheese maker for the
better interests of the cheese industry of Wisconsin and for the proper
protection of the cheese maker himself. When you listened to your
president's address, what was it he said? He talked quality to you.
Mr. Glover, in his splendid address, talked to you on quality. Mr.
Noyes talked to you on quality, and I had the pleasure of hearing Mr.
Kasper on the question of quality. I have heard Mr. Rindt who
brought home so forcibly what was needed in the cheese industry. I
have made up my mind that there was something wrong with the cheese
industry of Wisconsin. What I want to illustrate is this, that you young
men who are starting out, do not forget to study and keep on studying.
You will not only find $10 bills but $100 bills in every dairy journal
that comes to you in every mail.

It is not often nowadays that we hear people refer to the "olden
times" for any other purpose than to make a comparison between the
prices charged then and now for the necessities of life; and most of
these comparisons go back only a few years. However, I wish to carry
you back in thought several hundred years for the purpose of drawing
an analogy between the conditions surrounding certain industries in the
Middle Ages and the conditions surrounding the cheese industry today,
and I shall promise not to mention the subject of prices in the entire
course of my remarks.

If you will recall what you know on the subject, you will remember
that entering a profession, or even a trade, in days gone by, used to
be a matter of serious moment. A candidate was apprenticed in early
boyhood to the master who was to teach him his life's vocation and the
master was carefully selected for his ability and reputation as a work-
man. Then ensued a long period during which the apprentice was
painstakingly instructed in every detail of his chosen work and during
which he slowly acquired the knowledge of his master, ripened through
years of experience. Eventually, after what must have seemed an eter-
nity to the youth who had long since grown to man's estate, the ap-
prentice became the journeyman, privileged to travel and work for wage.

But there were still years of effort ahead of the man who had successfully progressed so far. He must gain a large experience through the practical application to every-day conditions of the truth he had already learned; he must prove his ability to understand and solve the problems with which the worker in any line of activity is constantly confronted; and finally, before he could lay claim to the appellation of "master craftsman" or consider himself a finished workman, he must unquestionably demonstrate his ability by the execution of a masterpiece.

Not until all this had been accomplished was our one-time apprentice admitted to the inner circle of his guild, that organization whose function was to perpetuate the traditions and ideals of the craft. Here he was kept in touch with others of his profession, he learned what his brothers were doing and with these other skilled workmen he strove ever to advance,—to develop new thoughts, to increase his knowledge, to improve his technique; and because of all this the quality of his handiwork was continuously bettered and the world was enriched thereby.

The rules and regulations of the guild were hard and fast and swift retribution followed any violation of their tenets. But it was seldom necessary for the guild to punish because the workman took pride in his work. To him it was a sacred charge to be entrusted with the carrying on of a work which had gradually grown through the centuries and he felt, and justly so, that to have worked faithfully and well, to have aspired always towards a higher ideal, to have contributed something to the sum total of the knowledge of his craft for the benefit of the generations to follow, was not to have lived in vain.

And now, what lesson can we draw from this record of conditions which existed long before you or I were born? How, you ask, does all this apply to the cheese business of Wisconsin in this twentieth century of ours? I would not for an instant want you or any other present-day group of workers to revert to the hardships of the medieval seeker after knowledge with his years of effort expended in a search for facts which could only be transmitted by word of mouth or acquired by bitter experience. Nor would I want any man to needlessly spend many productive years of his life earning only for another, himself benefiting in no financial way from his labors. These things are not needful because times have changed. Books and schools have opened an easy path to him who wants to learn and the knowledge and experience, the research and the experiments of the whole world are to be had by the poorest for the asking. Furthermore, the ease and speed with which one may now learn, and learn surely, have eliminated the necessity for the long years of the former apprenticeship.

But I do say that we can well sit humbly at the feet of those artisans of the past who built slowly, it is true, but soundly, and there learn the beauties and the benefits of a steadfast devotion to an ideal.

There is too prevalent, in these times, the idea of the necessity for speed, and speed is too often obtained at the sacrifice of quality. We do not give enough consideration to the foundation upon which we hope to erect our monument of achievement. Too often are we swayed by a consideration for immediate though mediocre results; too often is our judgment warped by false standards of value. To make use of a phrase which may be heard on almost every lip, "quantity production" has
become our fetish and we seem to have lost sight of our time-honored standards of quality, the continued observance of which is the only thing that can make our much vaunted "quantity production" anything but a snare and a delusion.

You men are cheese makers. You are members of one of the oldest professions in the world, one which numbers thousands in its ranks. And when I say that cheese making is a profession I speak advisedly, because I believe its science has reached a point which justifies that expression and because I also believe that a man who has mastered the art of cheese making in the same degree that the so-called professional man (in the ordinarily accepted sense of the term) has mastered his business is entitled to the same recognition of his study and ability as the lawyer or physician or the representative of any other profession.

But I tell you frankly—and I regret to admit it—I think there are many cheese makers today who cannot measure up to this standard. I repeat, that I am sorry to be forced to make this admission—I would much prefer to be able to say that the cheese maker who was not a master of his art was the exception. But the time has come when we must look this situation fearlessly in the face, when we must meet the issue squarely, if Wisconsin is to maintain her place as the premier cheese-producing state of the Union.

The dairy industry is, as you well know, one of the most important, if not the most important factor in Wisconsin's commercial development; and for years the cheese branch of that industry has been going forward by leaps and bounds until now our state is producing the enormous amount of over three hundred millions of pounds of cheese annually which is more than is produced in all the rest of the United States put together. This is a record to be proud of and it is equaled by the reputation which Wisconsin has established for the quality of the cheese produced. But competition is becoming keener; other states are not going to permit Wisconsin to retain this leadership without a struggle. The time is past when we can be satisfied with a "good enough" product even though that product has been better than anything made elsewhere in the past; we can no longer be satisfied with a maker who does not know all these is to know about his work and about the possibilities for improving the quality of his cheese. At the present time we are laying such emphasis upon quantity and are striving so hard to make more cheese in the chase for the almighty and elusive dollar that quality is being disregarded.

It is a fact, as revealed by the work of the dairy and food office, that the quality standard of the cheese now being produced in this state, is alarmingly lower than it has been in the past. We are in grave danger of doing irreparable injury to Wisconsin's cheese industry through this tendency toward a lower quality standard. The production of vast quantities of cheese will serve no purpose if that cheese is not salable; and relatively poor cheese will not be able to compete successfully with a better article on the same market. This will be the condition which will prevail, with other states coming to the fore in cheese manufacture, if we do not take prompt measures to forestall it.

I do not wish to appear before you in the guise of a "calamity howler" nor do I mean to detract from the excellent reputation which Wisconsin's cheese has established for itself. But I do think it my duty to sound a solemn warning against the tendency toward careless-
ness in the matter of quality which seems to be setting in and gaining headway.

As Dairy and Food Commissioner, I have tried, by patient effort, to raise the standards for dairy products in this state; I have tried, through my field inspectors, to advise with those men who produce or handle or manufacture dairy products and instruct them in the most approved methods of doing their work. The response I have received has many times failed to evidence that appreciation or cooperation which, on the score of personal benefits alone, might have been expected. Plainly, more drastic action is demanded and it shall be my policy from this time on, not only to advise and instruct as in the past, but to insist upon compliance with those statutes and regulations which are designed to and which will protect the dairy industry as a whole and your own individual interests as well.

Nor am I going to confine my remarks to what may be called destructive criticism but will offer as a solution for the somewhat gloomy prospect I have presented what I consider to be the logical course of action to be followed. I can express this in two sentences: First, let the cheese maker consistently try to increase his knowledge of his business, viz., of the technique of cheese making, and aim always to produce a cheese superior in quality to his best previous effort. Second, let us raise the standards of the profession by increasing the requirements which are pre-requisites to the granting of a cheese maker's license.

If my first suggestion is followed out it will mean that you, as cheese makers, will devote what time you can spare to the study of all phases of the dairy industry which affect the manufacture of cheese; that you will keep abreast of the latest thought of your profession; that your factories will be maintained as a place where food is handled and stored should be maintained, and finally, it will mean that there will develop a pride in work well done—well done with no thought of pecuniary reward but because of the joy of the craftsman in the accomplishment of a worthy task.

If my second suggestion is adopted there will be permitted to enter into the business of cheese making only men who are fitted by training and experience to properly discharge the important duties incident to that work; and the maintenance in the future of that condition which your efforts will enable us to realize now, will be assured.

In this connection and for your consideration and discussion, I wish to offer as a specific recommendation that an applicant for a cheese maker's license in Wisconsin be required, before such license is issued, to have had at least a common school education or its equivalent, to have had at least two years of practical experience as an assistant in the making of cheese and to have graduated from at least a six months' dairy course conducted by an educational institution of recognized merit.

I would like to have you express an opinion as to the feasibility and desirability of such a regulation. Personally, I feel that something of this kind must be done as a matter of protection to the cheese industry. But whether this regulation be adopted as proposed or not, the individual cheese maker must assume a different attitude toward his work. He must remember that every time he makes a poor cheese he has done a thing which will reflect discredit in some measure upon every maker in the state and every cheese made in the state; he must place before himself the ideal of our ancient brothers that the standards and tradi-
tions of the craft are a sacred charge upon each member of the guild and that they must on no account be lowered but must ever advance.

Then let me enlist your thoughtful cooperation in what I assure you is a critical time for Wisconsin's cheese industry. With the production of quality cheese increasing in other states and with the high standard of our own product threatened by our own carelessness, we must all unselfishly pull together if Wisconsin is to remain in the future what she has been in the past—the greatest dairying state in the United States of America.

DISCUSSION

Pres. Reed: Any suggestions or questions pertaining to the qualifications or pertaining to cheese makers' license as suggested by our Dairy and Food Commissioner, Mr. Weigle?

Mr. Glover: I desire to support any idea, any plan, any system that will provide Wisconsin with better cheese making. I do not wholly agree with Mr. Weigle that we should have an arbitrary time set for the years a young man should serve in the cheese factory or what course he should take before he is granted a license. Some men can become cheese makers and good ones in one year. Other men can not become good cheese makers if they work at it all their lives. Therefore, to say that a young man should work two years in a cheese factory and graduate from a dairy school of merit would not necessarily mean that he is qualified to fill the position of cheese maker. I think it well for the young man to have a seasons experience in a factory and spend some time in a dairy school, then if he wants to take a cheese factory at the suggestion of his instructors, he should be given an opportunity to take that cheese factory, and if the dairy and food commissioner in visiting his factory finds that he is operating it successfully and well, grant him a license; otherwise grant him no license no matter if he is a graduate of a dozen dairy schools unless he can make good cheese. You know the commissioners suggesting two years' apprenticeship reminds me of a story of a boy that attended college and he was bragging to his father and he said 'Father, you know that I am a graduate of two colleges.' His dad said, 'Yes, and I have a calf who sucks from two cows and the more he sucks the bigger calf he gets.'

Now gentlemen let us have a qualified cheese maker and not grant licenses to young men until they have proven themselves capable of making good cheese. Let us not be too particular about the time they have spent in dairy schools or the number of years of apprenticeship. (Applause.)

Mr. Lee: I want to ask this question. The commissioner knows as well as the rest of us that there is not a day that goes by when some cheese maker will write to the commissioner asking him to investigate why a certain man was granted a license or permit? How are we going to deal with those questions in the future?

Pres. Reed: I do not want to tell tales out of school but there are resolutions that are coming before this convention. There will be a resolution, under which each county is supposed to have an inspector and an instructor and there is a provision in the resolution to take care of the finances. We are going to the legislature and the county boards.

Commissioner Weigle: Mr. Glover comes out and tells you that if in two years if a man does not study or learn he does not amount to a row of pins. But as a fundamental he has to have education to start with. When you get men into your office and you ask them a question and they
can not answer the simplest question, and that man has got to answer the problems of the dairy industry of Wisconsin, how is he going to solve these questions of pin hole cheese or the curd test, etc. I believe that a man ought to have a practical experience before we throw him on the suffering people of Wisconsin, and I do not agree with Mr. Glover that all you need to know is how to make good cheese. He should have a public school education and practical experience. So, I say that the length of time does not probably make a good cheese maker, if he can make good cheese in six months, alright. Who is going to tell? Shall we carry on an examination as in other professions? You are going to let down the bars on your cheese making just as they are in the butter industry? Alright. How is Minnesota protecting her butter industry? The seum is being shipped over to Wisconsin. That is what we want to prevent. For that reason, the young man who is going out to be a cheese maker ought to have at least the fundamental principles. He ought to have at least a public school training, so that he can figure out to his patrons butter fat, etc. I know a lot of cheese makers who have others do the figuring for them. I think that he ought to have something at least—a public school training—and he should have practical experience and he also should have some training at the dairy school, taking up the butter fat test and curd test.

**Mr. Glover:** I am afraid that Commissioner Weigle mistook the point of my few remarks. I would not lessen for one moment the knowledge that is required of a man that is to make cheese. I would want him to make the curd test, the rennet test, and the Babcock test. I emphasize knowledge rather than the time of getting the knowledge and experience. Now it seems that in specifying two years of apprenticeship it was emphasizing a period of time that was unnecessary if a man could get that knowledge in one year. I would ask for quite as much knowledge as you do but I would not emphasize time so much. I would emphasize knowledge more. (Applause.)

**Tuberculosis and Pasteurization in 1920**

By O. P. Norgard, Commissioner of Agriculture

**Mr. President:** I am pleased indeed to have an opportunity to appear before this body of men, practical scientists as you are, for you are putting into practical and profitable use every day a large body of scientific principles of recent or distant origin in practically all of the sciences including Chemistry, Bacteriology, Botany, and Physiology.

The subject of Bovine Tuberculosis is no new subject to the dairymen of Wisconsin, but because of its vital effect upon dairying and on the income of the dairy industry, and particularly on human health, especially in the light of recent scientific discoveries, its consideration comes to us with a new and more vital force than ever before.

**The Financial View**

Bovine Tuberculosis is of importance to the dairy industry of Wisconsin both from a financial and a health standpoint. In the light of the