your cheese well cured and dried before paraffining you can put it into storage and it will not deteriorate and in fact it is going to improve.

We have many people that are using press cloths and not circles. The result is what you have seen on exhibit. You have no rind there. The printed cloth is taken off when two or three days old. It is checked and looks unsightly, gets moldy and deteriorates rapidly. By all means use circles. I know that in a certain section certain buyers have driven from factory to factory and told the makers to ship down the goods without using circles and that they would buy them anyway. Tell them not to teach you anything that deteriorates the quality of the cheese. Some save scale boards, by not scale boarding their cheese, but these things deteriorate the quality of your cheese.

I would recommend that every cheese maker get into a small organization in your county, meet regularly, call in your dealers and farmers and decide those things. Try to improve the quality of your cheese and you will all gain by it. You are not going to enrich the dealer, you are going to have satisfied consumers and satisfied retailers and you will have satisfied farmers. You must educate them to what is good. As long as you teach them to beat your neighboring factory in getting a bigger yield you are going down hill very rapidly.

During the past five years, we have had the fortune to be able to dispose all of our underdone cheese across the water but they may not want it now and you will soon find that you have done the wrong thing the last five years. The demand will not be as heavy as it has been and our production will be heavier and in order to take care of it you must satisfy the consumer. I thank you.

"THE CHEESE DEALER'S ADVICE TO CHEESE MAKERS"

Horace Davis, Plymouth

When the prohibition law was enforced in this United States, we had little idea of its effect upon the cheese business. But has already had its effect. The saloon free lunch all over the country bought and gave cheese to their patrons and they gave a vast quantity of it, usually a cheaper article. With the doing away with all saloons, that demand has ceased. Where we formerly could get rid of acid, bad flavors or other off goods, we have not that outlet. The question now is, what is an off cheese worth, and that is a conundrum that is bothering the cheese dealer very constantly at present. We have not this year been able to sell sour cheese. We have got some in and we have tried various buyers that formerly bought sour cheese and we could not even get an offer. When some factory men were unfortunate enough to have such cheese and asked the dealer what he would pay for it, he told them he would sell it for their account. That cheese has been shipped down to New York and has not brought a demand; so be careful, mighty careful, do not make sour cheese. The same argument is true of off flavored, pinholed and other off goods. There is no market for it, even though a year before last the dealer was able to handle it for you. That same dealer this past year had his difficulties in trying to dispose of these goods and in many cases advanced a certain amount of money, and
those goods have not been sold but shipped on commission and are not really bringing the amount of money advanced by the dealer. So that it has resolved itself right along this one point, there is a demand at market price for good cheese and there is practically no demand for poor cheese and if you are unfortunate enough to make poor cheese, you will have to expect and get a greater and greater difference on those goods, so that it will show you a very material and serious loss.

The greatest production of cheese is in the summer, and I want to call your attention to the fact that at that time of the year the entire amount of cheese made is not consumed, and large volumes of cheese goes into the cooler, and if through the process of making the cheese in the cooler it does not keep and gets into condition of rind rot of this nature, you destroy the dealers' ability to advance you money on goods through the season of greatest production, destroy your market later in the year for cooler goods and it will mean very low prices in the summer for the goods produced at that time because it will destroy all value on cold storage cheese. That is reverting back to the farmer that has been so short sighted as to insist that the cheese maker should make a higher yield of cheese because some neighboring factory did so.

I fully coincide with the former speaker that cheese should remain on the shelves and be turned once a day. I have been in factories where there has been no cheeses in the factory; they had all been shipped out. What cheese there was, was in the process of manufacture in the vat.

The paraffining of cheese by the factory has produced bad results. They paraffine it too young, so that in a little warm weather it will all blister before it reaches the dealer or the cooler. They paraffine it so young that it scales off, and moisture produces the result as you see here on this one cheese, where the bandage does not stick to the cheese and under that bandage you will find it all slimy and wet. In former years the cheese makers bought scale boards and used them on their cheese in shipping them to their destinations. How many of you are doing it today, and how many did it last year? A lot of the cheese comes in, and if the dealer does not handle it right away in many cases the cheese sticks to the box, breaks off and damages the goods. You have got to use the scale board or cap, and you should use both. It was necessary that the dry air act upon the surface of the cheese before it forms a rind. You have stopped that. You are shipping in blind cheeses, and where you paraffine you perform a still worse job than putting in a cheese that is without rind, and it will form moisture and become rind rotted.

There have been a number of dealers that have complained about cheese having green mold through the cheese. We have been unfortunate enough to experience that in a quantity of cheese this past season. We are trying to give it a careful investigation. We believe it is caused by several different things. One of your judges here this morning said that they found a perfectly sound cheese that showed no crack with green mold in it. There are some makers in the country that have a bag for surplus curd left over from one day to another. They do not have enough additional curd to fill a hoop, but they still have some left over. They have been putting that curd in one bag day by day and I investigated one factory and we found that the mold germs were in that bag and that in dumping into it the curd left day by day it simply impregnated it with the mold germ that was there, and when he took that curd out of the bag that day to put in his vat he put that green mold germ into that milk. If you carry over any curd in a bag see that it clean. Take the longhorn and sew up
two ends of it. Put your curd in there and in the morning tie a string at one end and lower it into the corner of your vat so that your curd will become softened and moisten and then put that curd in one lump and do not scatter it in the whole vat. If any bad condition is there it will only be in one cheese.

I have been told by a number of makers that it is the cheese dealer’s fault for the poor quality of cheese. I differ. The cheese dealer is dealing with a lot of cheese makers all over the state, friends of theirs, and they have been interested and doing the best they could for the factories that were patronizing them. That is the logical way for a factory man and a dealer to get along. We try to help. Here, last night, it was stated that the cheese dealers should cut the factory for the poor quality. The war is over, gentlemen. The quality of cheese in the state of Wisconsin has got to improve from what it has been this last year. I hardly remember a season in which there was more poor cheese made than in the month of June last year. And gentlemen, the cheese dealers took their cheese and paid you market price for it and in many cases a premium and they have lost money in doing so. There is nothing that will bring men to their senses quicker than the loss of money and the cheese dealers state to you today, that with the market conditions and the demand for quality, they shall insist that the manufacturer of cheese shall give a better quality, or that poor quality cheese shall only be paid for at what its estimated value will be. They want you to cure your cheese in the factory before shipping. They want you to stop paraffining cheese if it is best, or if paraffined to let it first form a rind and become mature. They want you to box your cheese right in longhorns, have cheese of the same height instead of big ones and small ones in one box, just for the sake of one sixteenth of an ounce in weight. Do not make your cheese so large that your longhorn America, Daisy or any style you make is one quarter or one-half inch above the size of the box, because in hot weather that causes cracked and molded goods and there is a loss. I hope that these gentlemen over here who are still in school, and you makers who have been at it for a number of years will commence to realize that a new era has started. We want your cooperation and we want to cooperate with you, but a better quality must come from the state of Wisconsin.

One of the reasons for our great troubles this year has been that the railroads under the government administration have withdrawn a large part of their refrigerator service, so that dealers in shipping goods have not been as close to the destination under refrigeration as formerly. It has had to be shipped in box cars and with high moisture, factory paraffined cheese, that cheese has arrived in many cases in blemished condition, the wholesale grocers have said that if they have to retrieve such losses again, they will have to cut out the cheese business.

MR. UBBELOHDE: Why paraffine cheese at the factory at all if shipped out in a week or less?

ANSWER: I do not believe that factory paraffining is beneficial to the product. I think that it is a detriment and I would like to see all paraffining discontinued by the factories. The fact is that by your paraffining you are trying to bottle up lots of moisture that you are trying to sell for 30c per pound.

I want to say to you also that the agricultural department of Wisconsin is considering a law to prohibit the paraffining of all cheese under the age of seven days and Prof. Doane here in Wisconsin running a series of Experiments at Plymouth some seven or eight years ago, in a pamphlet
recommended that cheese should not be paraffined, I think, under three
days at the least, or four days.

**Member:** Not only was it four days, but those were 38% moisture when
made.

**Speaker:** Yes. I had last week a shipment of 98 Twin Daisies, and
we inspected the goods when they came in from an outside point, and we
called in the maker and told him his cheeses were green and we did not
know what curing would do. They were removed to Plymouth. They pro-
nounced them acid upon arrival there. I was there four days later and
I looked at the cheese and pronounced them sour. There was a difference
of twelve days in the three inspections on a lot of cheese running 43%
moisture. When one looks at it three days old it was green, four days
later it was acid, then four days later again it was sour.

I want to say another thing to you. For some reason the year before
last, lots of this cheese of an acidy nature improved, but last year it
turned sour. I do not know what did it. It was seemingly the same char-
acter of cheese as two years ago. It has become self-evident during the
past year that factory paraffining has been an abomination, and paraffining
any cheese before it has a rind has been very bad and a serious loss to
all of us.

**Pres.:** Any questions?

**Mr. Ubbeloheide:** I wish to ask a question. A year ago our institute
commissioner put on a program at the institute, so that in any community
where they have an institute they can have a cheese man put up there to
reach the farmers and try to have a cooperative circle formed, to have the
farmers employ a man to go around as instructor at the cheese factory.
One man to supervise 30 or 40 factories. Would that be a good idea?

**Answer:** Last night I attended a meeting here and a discussion of
moisture came up. One maker got up and stated that he was making a
fairly good cheese. But a neighboring factory paid a better dividend than
he did. That it was a matter of moisture or perhaps a difference of butter
fat in the milk. This other factory paid better and the farmers asked him
why this other factory paid more money and he said they make a higher
moisture cheese and that he made a better cheese. They then told him to
bring in as much money as the other man. Those farmers are in fact dis-
honest; because when they try to force a maker with all his money in-
vested in that small factory to violate the laws of Wisconsin they should
be prosecuted criminally. They agreed for this little extra dividend to
force the man who owns the small factory who has his entire investment in
it, to make a cheese that they know is unlawful.

What kind of a position does it put the maker in? This is a matter of
education that we ought to in some way that we as an association put up to
the farmers. If you force a maker to make this poor and inferior article
it will result in the fact that Wisconsin Cheese will lose its reputation, so
that it will be selling for less money and that will touch your pocketbook
more than this little moisture that you are trying to make this maker put
into the cheese.

Gentlemen, I can not emphasize too strongly the importance and the
danger that the state of Wisconsin is getting into by this process of ex-
cessive moisture and factory paraffining from the hoop. I earnestly call
it to your attention to give it your thought because it is endangering Wis-
consin's reputation for cheese. When you see a lot of goods in cold stor-
age get that way, what chance has the wholesale grocer, who buys that goods.
If he can not dispose of it before he gets that way, if the poor quality was
in it when made, and if you ship that cheese down south it would rot all to pieces and be a total loss, and the grocer would write to the wholesale dealer, 'What kind of cheese are you shipping me? If I cannot handle cheese without such loss, I will go out of the cheese business.'

DISCUSSION

MEMBER: I am just eating some of this old cheese. It is mighty fine. Why can not we make more of this? When we get home we will think of it. If we can get cheese that will be as good as this and as mild as this in six years we will eat 12 pounds per capita instead of four pounds per capita.

MR. LEE: The commissioner has sent word to me to make this request of you. The dairy and food commissioner has by law been asked to collect figures in reference to the cheese production in Wisconsin every two years. The figures must be in our offices by March 1st for the year 1919. Now we want your cooperation in this matter. Do not make us crowd our office by sending out two or three notices and even to send out a notice that if the report is not in and filled that we will have to prosecute. Cooperate with us. Let us have those figures. We can not make definite statement unless we get reports from all the men. Bear this in mind.

The other announcement is this. All licenses must be renewed. Do not do as some of you do or did last summer. Do not wait until the inspector comes to you or to your factory. Send in your renewal to the office.

Another thing is this. Last year there were a few men who did not renew until October. Inspectors will be instructed this year that if they get to a factory in the state and if they find a maker or an operator without his license he will prosecute him. The law is specific on that. A man with a permit issued last year either on the factory, or as a maker, is not to be renewed. The permit holds good until you get a license, even if it is five years.

I also wish to call your attention to the fact that there is a standard for moisture in brick cheese and that this is 42%. The brick cheese makers must stay under 42% and the American cheese makers under 40%.

COW TESTING AND CHEESE FACTORY PROSPERITY

By PROF. GEO. C. HUMPHREY, Madison

The wealth and prosperity of every cheese factory community lies principally in its dairy industry. A maker may operate a factory with a comparatively small number of cows and a relatively small amount of milk, but to enjoy the degree of prosperity which every cheese maker enjoys, it is necessary to encourage as large a number of most excellent dairy herds and as large a milk production as possible. Successful dairy farming and herd management make for a prosperity that is enjoyed by all associated with the dairy industry, including the farmer, dairy manufacturers and all business corporations and classes of society directly or indirectly concerned with it.