about together, and it is with that feeling of happiness right now that I am back here in Wisconsin so that I can say to you "Wie gehts."

There are many people in this world who think that the cheesemaker is solely and completely responsible in those cases where the cheese that is turned out from his factory doesn't grade up to proper standard. But responsibility for cheese quality does not rest entirely with the cheesemaker, for the production of good cheese starts at the farm, right at the cow's teats—not at the receiving vat of the cheese factory.

Unless clean sweet milk is delivered to your factory it is impossible for you to turn out cheese of finest flavor and highest quality, no matter how skilled you are as a cheesemaker or how fine and modern your factory and your making equipment may be.

"A chain is no stronger than its weakest link"—and the weak link in the cheese producing chain is the failure on the farm to follow careful sanitary precautions every step of the way in the production and handling of milk.

Now, the farmer's end of the deal is many sided. To be a producer of quality milk he must have healthy cows. He has to feed his cows right. When the milk is drawn, he must prevent dirt and filth from getting into it. He must keep the milk handling equipment—buckets, milking machine, strainers and cans—clean and sterile so they won't contaminate the freshly drawn milk. And unless the milk is delivered immediately to the factory, he must cool it out promptly and thoroughly to prevent the growth and development of destructive bacteria.

That sounds like a big program for the farmer—and it is. I have every sympathy in the world for the farmer whose hours are crowded from morning to night—who always has something waiting to be done—and who is tempted by the pressure of other things to neglect what may seem to him to be unnecessary detail.

But we must not lose sight of the fact that the farmer is a business man—that putting his milk on the market is a business proposition—and that hard-headed business principles must govern his business activities.

Remember, in business, too, the broad principle that "the customer is always right!" It is the customer who makes the market—it is the customer who pays the bill—and it is the customer who decides whether he wants much or whether he wants little of a product that is offered to him. The dairy farmer who is a wise business man knows that. He knows that to succeed he must please the
customer first, and that his pleasure and reward will come from satisfactory customer response. The one sure way to please the customer is to furnish him best quality products.

The farmer may complain—and in some cases justly—that he doesn’t get his full share of the customer’s dollar. But until the farmer has performed his part better perfect, and until he has put onto the market a product that measures up to high standards of quality, his claims for a larger part of the consumer’s dollar will not and cannot carry the weight that they otherwise would.

So this matter of quality milk production at the farm is vitally important to the farmer’s business success. It is vitally important to your business success, too.

Since the milking machine bears a close relation to the quality of milk, I have been asked to talk about the milking machine and the necessity of cleaning it each time it is used.

A clean milking machine is a great help to both the farmer and to you, the cheesemaker. From the farmer’s standpoint the milking machine saves time. It saves labor. It allows the farmer to spend more hours in the field. It cuts down his operating expenses and enables him to show a better profit. The farmer who makes a profit is a better patron for you—a steadier one—and one who is more willing to do all the things that have to be done to produce quality milk. With the milking machine the farmer gets the milking done with “on time” regularly and gets the milk to the factory on time.

Then, too, the milk is drawn through tubes into a vacuum sealed pail. Hair, scale, and dirt from the cow’s body don’t fall into the milk. Dust and stable dirt don’t get into it either. So, if the farmer keeps the milking machine clean, he can produce cleaner milk with it than by the best of hand methods.

But there is the great tendency on the farms to neglect the proper cleaning of the milking machine. In too many cases the cleaning consists of sucking some cold water through the tubes and then dumping the tubes into a sterilizing solution to soak until the next milking, with perhaps disassembling the tubings once a month, or possibly every two weeks, to brush and scrape them. I need not tell you, for you know, that with such care a gooey, smelly milk substance accumulates on the rubber surfaces to make the milker a hot bed of contamination.

Such handling of the milking machine isn’t altogether the farmer’s fault. Manufacturers of milking machines, knowing that the busy farmer dislikes fussy detail, have outlined in their instruction books that rinsing and soaking daily—with a grand clean up every
two weeks—is the method to follow. Even our universities—anxious perhaps to please both the farmer and the milking machine manufacturers—have been reluctant to call a “spade a spade.” They, too, have compromised the situation by issuing bulletins advocating a daily rinsing and soaking—with a tearing apart of the machine for a thorough physical scrubbing every two weeks.

But no self-respecting farmer, no self-respecting milking machine manufacturer, and no self-respecting university professor would eat his food regularly off from greasy dishes that had been rinsed and soaked between meals—and washed thoroughly only once every two weeks. No sir! His stomach would do a flip-flop. This “once every two weeks” scrubbing is all wrong.

There is just one way to keep a milking machine clean—and that is to take it apart and scrub it every time it is used. If the farmer won’t and can’t do that, he’d better not use a milking machine at all, for unless he keeps his machine clean so it won’t contaminate the milk, he isn’t being fair with himself, he isn’t being fair with you, the cheesemaker, and he isn’t being fair with the public that consumes the cheese or other dairy products made from his milk.

But if the milking machine is cleaned as regularly and as thoroughly as the table dishes, then the milking machine is a blessing and it has a very definite place in the milk producing program. For as I said before, the milking machine saves time, saves labor, cuts down expenses, increases profits, keeps milk clean of stable dirt—and what’s more, makes it possible for the farmer to get his milk to your factory “on time.”

I thank you.

PRESIDENT WHITING: Thank you, Mr. Wilson. You will notice in the program book there is to be a discussion on this. Is there anyone here who would like to ask any questions?

MR. SUIDZINSKI: The way I find it, in the last few years we have increased milking machines throughout our territories and there is our biggest problem. I don’t know how many have the same troubles, but I wish that everyone would raise their hand that the milk machines last year gave us most of the troubles than we have to contend with. Will all these fellows raise their hands whose milking machines have given them troubles? And how many believe that milking machines help us? I believe in milking machines myself, and good milk can be produced, but I have this—I have a number of cheesemakers come and tell me this, they have a salesman come out and sell them milking machines and tell them they only have to wash them once in two weeks. The salesman told me, “If you wash the machine once every two weeks that is O. K.” I don’t
agree with this at all. I have had this proven. I have milking machines and they have lasted for years and years. It can be done with milking machines, only they must be taken apart and cleaned.

PRESIDENT WHITING: Is there anyone who would like to ask Mr. Wilson any questions or have anything more to say about the use of milking machines?

MR. PRICE: Mr Whiting, may I ask Mr. Wilson if there are any kinds of solutions that can be used to keep the milking machines clean with a rinsing process?

MR. WILSON: The answer to that is yes. You can keep the machines bacteriologically clean but not physically clean and I am not so sure that they can be kept bacteriologically clean 100 per cent because cracks and checks get into the rubber and the solution doesn't get to them. However, the use of a lye solution is to be highly recommended.

Now, in my talk I emphasized the matter of scrubbing. I don't mean by that a physical brushing and scrubbing. I don't mean to infer that the milking machine parts shouldn't be sterilized and sterilized thoroughly. But you all had the experience washing a car and the car gets a film of dust on it and you are in a hurry to get it slicked up to go somewhere. You get out the hose and wash it with plenty of force and don't have time to chamois it off. As soon as the car dries there is the old dirt, maybe not so much. That is the way with the milking machine also. You can rinse them and soak them but there will be a residue left there, and unless you get in there with a brush to stir it up mechanically you get no results.

Now, a lye solution is very excellent and a good one to use for soaking the rubber parts between milkings, after they have been rinsed with cold water and washed with a washing powder and warm water and brushed, and then put into your lye solution which will kill the germs that may be left there and will prevent the development of any more. This lye solution is very inexpensive and very easily made. I want to take enough of your time to tell you how simply it is made and how it is used. Go to any grocery store and get a can of household lye. There are several good brands on the market,—a 13 ounce can. Then take a crock or earthen ware jar and put a gallon of water in that. Then pour in the lye slowly and stir it so that it won't cake in there until you get it thoroughly dissolved; and by the way, don't ever put lye in a water jug and then stir it up or they will be picking you up in pieces in the next county. Always have an open vessel, it may otherwise explode. Put in a little salt and then put the solution in a jug and use a rubber stopper. Stick a label on it and take the label from the old lye can.
That is your strong solution, and then as you need your soaking solution take a gallon of water and add to it a third of a pint—I believe that is about 20 ounces. In other words, if you have one of these half pint milk bottles, fill it up to about the neck, that will be a third of a pint and put that in the gallon of water. That is your weak solution. Then you can soak the rubber parts in that, your gaskets and cups and such as that, and it will prevent the growth of any bacteria and it will cut off any film of butter fat and any oils that are in there. If you keep the oil film off, that oil won't have a chance to soak into the rubbers and the rubbers won't break down and will last longer. That solution should be changed once a day. It is so inexpensive, there is no object in using it day after day. It costs about a penny a day to make up a weak lye solution.

A VOICE: Mr. Wilson, I heard you talk on treatment. You come very close to bringing out a subject there that I think would be of interest to all of us, and that is this, when is it advisable to change the rubbers on the milking machine? When are they worn out? Can you use them after they are checked and treat them as your workmen treat them and thereby produce a low count bacteria?

MR. WILSON: The gentleman has asked in regard to rubber parts of a milking machine and when they should be thrown out and can they be used after they become checked and cracked. In other words, the point is, what is the solution, the soaking solution that will get at the germs or bacteria and knock them out so they won't contaminate milk.

When rubber parts are checked they should be cast aside. It is false economy to use rubber parts. As soon as they get those little cracks in them, out they should go, even though they may not have holes in them. Yet, because any action of the milk machines, the liners inside the teat cup are being collapsed and bent back and forth and those cracks you see in there are opened up and fresh milk running across there are picking up some germs. One or two germs introduced into warm milk will multiply terrifically and then the tubes that the milk goes through reaching over to the pail, are twisting and bending all the time. There is a tendency to use them too long. You will get better results in milking if the rubbers are in good shape.

PRESIDENT WHITING: Thank you, Mr. Wilson.

A thirty dollar cash prize is to be given away this morning for door prizes; five dollars given by the Northern Produce Company and twenty-five dollars by the National Cheese Institute, and you must be in the room to receive these prizes and you must be a licensed cheesemaker. So you better not leave the room or you might miss out on the prizes.
If there are some people who have driven in this morning and want stickers for their cars so that you may park as long as you want, you can get these tickets at the registration desk. Also there are some of the exhibitors that are giving away prizes and those of you who have not registered at the booth where they are giving these prizes away, you might have an opportunity of winning several nice prizes. You must register at the booth where these exhibitors are giving these prizes.

We have with us the 1939 Dairy Queen and I will introduce her to you now, Miss Ruth Vinger of Argyle, LaFayette county.

MISS RUTH VINGER: Thank you, Mr. Whiting. I have been looking forward to this with pleasure for several weeks because I feel honored to be representing our state’s great dairy industry, and I am willing to do anything to help. When I went west with Mr. and Mrs. Ralph Ammon, we presented cheese to several of the people and I know they enjoyed it and appreciated our doing it. I want to thank Mr. Whiting and the rest of you for doing this and the pleasure of entertaining you at the cheesemakers’ convention. I recognize a few of your faces and I hope before the day is over I will know more of you. Thank you.

PRESIDENT WHITING: Next on our program we have with us the Chief of the Dairy Division, Department of Agriculture and Markets, Mr. Kuenning.

ADDRESS

By Mr. L. G. Kuenning

My friends, it is a pleasure to meet with groups of this particular kind who are interested in the welfare of the dairy industry. The Department of Agriculture in the regulatory end of the business are here with you to help and to do everything we can. Our interest is mutual and we have a big job ahead of us.

Now, I think the big job in the dairy industry today is a quality improvement program. This job is one that I have been interested in for many years. I was especially pleased to be in a position, as chief of the dairy division, to do some actual work on a program of quality improvement.

There are many reasons why we need a quality improvement program. Wisconsin has always been out in the front as far as quality is concerned. Conditions are changing; other states are going into the dairy business. Wisconsin’s salvage lies in producing a better product than any other state or any other territory. Our competition is getting keener and keener every day. The thing