Elmar H. Maat .................................................. Plymouth, Wis. .................................................. 94.
Andrew Peterson .................................................. Lone Rock, Wis. .................................................. 96.4
Frank Wonn ..................................................... Avoca, Wis. ..................................................... 85.5
Emil H. Peters ................................................... Boyd, Wis., R. 2 ................................................... 95.
Math. C. Berres .................................................. Osceola, Wis. .................................................. 93.
Math. Meyer ..................................................... Stanley Wis. ..................................................... 95.
A. J. Schulte ..................................................... Marshfield, Wis. ............................................... 95.5
C. W. Coatway ................................................... Wrightstown, Wis. .............................................. 90.
A. Koopman ....................................................... Grafton, Wis. ................................................... 91.5
Louis Rach ....................................................... Loyal, Wis. ...................................................... 90.
Frank Wetzling ................................................... Allenton, Wis. ................................................... 92.5
Adolph Dieck ..................................................... Tigerton, Wis. ................................................... 94.
Willard J. Mortensen ........................................... Birnamwood, Wis. ............................................. 95.

**Swiss**

Ernst Willy ..................................................... Monroe, Wis. ................................................... 97.
Arnold Schmidt .................................................. Barneveld, Wis. ............................................... 95.25
Nick Engelbert .................................................. Blue Mounds, Wis. ............................................. 94.
Carl Lenhus ..................................................... Barneveld, Wis. ............................................... 95.50
Alex Hoerburger ................................................ Gratiot, Wis. .................................................. 95.25

**Limburger**

Fred Langacher ................................................ Monroe, Wis. ................................................... 97.25
Fred. Bahler .................................................... Darlington, Wis. ............................................... 96.
Robert Salvisberg .............................................. Livingston, Wis. ............................................. 94.
Fred Schuler .................................................... Morrisonville, Wis. ......................................... 93.
August Martini .................................................. Monticello, Wis. ............................................... 95.75
John Weiss ..................................................... Belleville Wis. ................................................. 93.75
Jacob Mueller .................................................. Rice Lake, Wis. ................................................ 93.75
Otto Hohl ....................................................... Monticello, Wis. ............................................... 94.75
Carl Liecht ..................................................... Verona, Wis. ................................................... 93.75

**Brick**

Fred Schaller .................................................. Barneveld, Wis. ............................................... 97.
Fred Baertschy .................................................. Mayville, Wis. ............................................... 94.75
Rudolph Schaller ................................................ Barneveld, Wis. ............................................... 92.
Wm. E. Radtke .................................................. Eland, Wis. .................................................... 92.50
Gottfried Werren ............................................... Mt. Horeb, Wis. ............................................... 93.25
Oswald Schneider ............................................... Appleton, Wis., R. 1 ......................................... 95.75
Fred Feutz ..................................................... Rubicon, Wis., R. 1 ............................................. 92.
Fred Farren ..................................................... Hartford, Wis. ................................................ 95.
Hugo Lautenbach ................................................ Pardeeville, Wis. ............................................... 95.
Fred Indermuhle ................................................ Brownsville, Wis. ............................................ 96.
Gottfried Vogel .................................................. Monroe, Wis. ............................................... 92.
Fred Feutz ..................................................... Rubicon, Wis. .................................................. 92.50
Fred Moser ..................................................... De Forest, Wis. .................................................. 93.50
Jacob Muller ................................................... Rice Lake, Wis. ............................................... 94.50
Carl Liechti .................................................... Verona, Wis. .................................................. 95.

**CHAIRMAN:** The next is the “Prize Winning Cheese—How Made” by Mr. H. A. Kalk, Sheboygan Falls.

**Mr. KALK:** Mr. President and Fellow Cheese makers: I was surprised last night when I was told by the President to tell you how I made my cheese. If I don't tell you all you want to know just get after me.
That cheese was made on September 4, 1917. I had five or six thousand pounds of milk and the milk was set with Marschall rennet test, 3 1/2 pounds Marschall rennet. In about twenty or twenty-five minutes I stirred it a little while with my hands, cooked to 102 to 104. It showed acid between 16 and 17. I put that cheese on curd racks and turned it every fifteen to twenty minutes for two hours, and then it was ready to bind. I put a little over three pounds of salt on that cheese.

Mr. Aderhold: How long a time elapsed from setting until you drew the whey?

Mr. Kalk: About two hours and ten minutes.

Mr. Aderhold: That whey was drawn sweeter than most of them draw it, wasn’t it?

Mr. Kalk: I don’t know. Don’t get it too acid.

Mr. Aderhold: How much starter did you use for 6,000 pounds of milk?

Mr. Kalk: About 25 pounds of starter. The starter was made by Hansen’s culture.

Member: Do you use racks all the time?

Mr. Kalk: About nine months in the year. I find it is a good thing. If it don’t work on racks the cheese is always scratchy. The moisture test on the cheese by Prof. Sammis was 36.2.

Member: Did you say that the curd lay in the vat 2 hours before making?

Mr. Kalk: Yes.

Member: And then?

Mr. Kalk: And then two hours.

Member: That makes fourteen hours?

Mr. Kalk: Yes.

Member: About how much acid did it contain?

Mr. Kalk: About two inches.

Member: What per cent?

Mr. Kalk: That I can’t tell you. I tried it on a hot iron.

Mr. Steffen: Was that cheese due to your process of making, or was it due to the quality of milk?

Mr. Kalk: The man that made it, he knew what he got.

Prof. Sammis: It seems to me that everybody would be interested to know that this first prize cheese didn’t contain 38 1/2% of moisture, it contained about 36.

Mr. Kalk: The same cheese took the highest score in Minnesota in November. I got a complimentary score, but I didn’t care. It cost me about $5.00 to get that.

Member: I want to ask if he hand stirred it any before he put it on the racks?

Mr. Kalk: No. As soon as it was on the racks I cut it and then turned it over. I had 550 pounds of cheese in the two piles.
MEMBER: After this cheese was made what was done with it, how was it handled?

MR. KALK: Put in cold storage.

MEMBER: How soon?

MR. KALK: Five days old.

MEMBER: It remained there until this time?

MR. KALK: Until a week ago yesterday when it was shipped here.

MR. ROCH, Minnesota: We had our annual Butter and Cheese Makers' convention on the 5th and 6th of November, and I knew when we got the scoring we didn't have any Longhorns in the state of Minnesota, and as much as I hated to have to, the cheese was there, I scored that cheese at that time and it was as near a perfect cheese as you ever could find, one of the best, if it wasn't the best I ever scored. At that time the cheese was a little bit new and I wasn't surprised at all when I came here and Mr. Kalk told me this cheese had scored 99.2.

There is one thing I would like to emphasize, that is our state cheese makers are afraid of losing salt. I don't know whether that is true in this state. I would have been very glad to have had Mr. Kalk state that to our cheese makers that he used over three pounds of salt. Our people seem to think one pound in the summer is enough, and 1 1/2 to 2 pounds in the winter. This helps a little to bring out the good flavor when old.

MR. KALK: I advise not to use too much salt, but I think three pounds or over if you want to keep it for a year and a half or two years, salt keeps the cheese best. If you want to keep the cheese two months use 1 1/2 pounds of salt, but if you want to keep it four months or over, use more.

MR. ADERHOLD: Another thing, you want to make it the good time of the year, make it in the month of June before the hot weather sets in, that is before fly time—I mean the house flies. That is when the weather is agreeable, nights are cool and days are pleasant. We haven't got many weeds at that time of the year and our grass is best. Another good time is before frost in the fall, after the grass is freshened. The milk will have that freshened grass flavor, so will the cheese. You see he didn't wait until after any danger of frost. We had frost on the 10th.

MR. KALK: I had some cheese that I made in July and I had that scored in New York and it scored 97. The weather has nothing to do with the milk if farmers take care of their milk.

MR. ADERHOLD: In July, if you have good pasture and nothing otherwise out of the way of course you can make fine cheese too.

MR. KALK: In June you have too much fresh grass.

MR. STEFFEN: Do you salt as heavy for that fall rack cheese or for exhibition purposes?

MR. KALK: I put in 2 1/2 to 2 3/4, the trade will take it. The more salt you use the longer it will keep.
MR. LINZMEIER: Did you keep your curd on the racks after milling as well as before?

MR. KALK: No, after.

MEMBER: Wouldn't the cheese age too much if it was made in June, wouldn't it get strong if you keep it until January?

MR. KALK: No, I had a cheese a year and a half old and it scored 97.

MEMBER: What is the reason, the amount of acid you give the cheese?

MR. ADERHOLD: The Salt.

MEMBER: The salt and the acid?

MR. KALK: No, the salt will give acid.

MR. ADERHOLD: If it is properly cooked there is no surplus of moisture. The milk was a little overripe and it is not a good keeper. But he had his curd properly formed before the acid did any harm.

MR. UBBELHODE: I have tried Kalk's cheese at different times of the year. He gets the moisture out of it at the start, plenty of salt in it and in a year and a half or two years it is just the same as six months old.

MEMBER: I would like to ask Mr. Kalk if he keeps his cheese?

MR. KALK: Saturday's cheese is shipped out Tuesday.

MEMBER: What size of a curd knife do you use to cut your cheese?

MR. KALK: Not very fine and just three times. I use the curd rack with my hand, stir it.

MEMBER: How fast do you cook your curd?

MR. KALK: From half an hour to an hour. When you have a self-heating vat you can't heat it up so quick.

MEMBER: How long do you stir the curd after you stop putting on the heat?

MR. KALK: Just stir it once in a while so it don't come together. Just feel of the curd; then your thermometer has a good deal to do. I wouldn't take a poor thermometer if you gave it to me. Every thermometer I get I test it up. I find they vary ten degrees.

MR. SAMMIS: I think you said you set that milk at about 2 1/2 on the Marschall test?

MR. KALK: About 2 1/2 cc. I always know how to work it.

PROF. SAMMIS: And put in about a half per cent starter?

MR. KALK: Not quite. I put in the starter as soon as I get a thousand pounds of milk, and in half an hour it is ready to set.

MEMBER: That starter has a little while to work in there?

MR. KALK: I found out the less starter you use and put it in a little bit earlier you can make a better cheese.

MEMBER: How fine do you cut that curd?

MR. KALK: Three-eighths of an inch.

MEMBER: How much acid do you have for dipping?

MR. KALK: About one-eighth of an inch.
MEMBER: Did you add the steam when you had a thousand pounds of milk?

MR. KALK: Yes, I haven't got any steam self-heating vat.

MEMBER: Do you add your starter before you warm up your milk?

MR. KALK: When I have a thousand pounds of milk I add the starter and go ahead.

PROF. SAMMIS: What temperature did you keep this cheese at since you made it?

MR. KALK: I couldn't tell you.

MEMBER: You kept it in your curing room?

MR. KALK: Five days in my curing room and after that at cold storage.

MEMBER: You don't know if it was kept at 35 or 45?

MR. KALK: That I don't know. I could find out. Sheboygan Cold Storage.

MEMBER: How long a time did it take after heating the curd?

MR. KALK: A little over half an hour. About half an hour, three-quarters to an hour. About an hour before I set it away.

MR. UBBELOHDE: How does your yield compare with the yield of your neighbors?

MR. KALK: My yield is lower. It takes about 10 1/3 pounds for a pound of cheese.

MR. UBBELOHDE: For the year?

MR. KALK: For the year.

MR. UBBELOHDE: At what test?

MR. KALK: About three and 6/10%.

MR. UBBELOHDE: You want to remember Mr. Kalk is in the county where there are Holstein cows and the yield of milk isn't as large as it is in the section where there are Guernseys, but I think his yield averages pretty good with the rest of it throughout the country, that is considering the richness of the milk.

CHAIRMAN: You always want about the same amount of acid every day?

MR. KALK: If the milk is a little bit riper I work it a little faster, but I use the same amount of acid. The cheese is all right if it is two or three weeks old.

CHAIRMAN: Some of the makers that take in the milk, as soon as they have taken it in they never test to see how much acid they have on their test. Just as soon as they have it in they throw the rennet in regardless of what acid they have.

MEMBER: About the point of the milk not being as good sometimes I want to say this. I took charge of a factory some years ago where there was a good deal of trouble. It was always laid to a swamp close by. I made this statement to my patrons, that I tried the milk from the swamp district two years before and I found it no worse than the other milk. I made this statement, if there is anything wrong with it, don't always lay it to the swamp, lay it to the farmer who
doesn't take care of it. This particular factory had the reputation for being the worst in the county. In two years time it was up to the standard in receiving milk. Our milk was no worse than the best in the county. You have got to keep after it all the time.

**Chairman:** As our program is now concluded, is there anything more to be brought up by anyone before we adjourn this 1918 convention of the Wisconsin Cheese Makers’ Association?

If there is no further business, I wish to thank you for the kind attention you have given us through all our meetings and sessions.

**Member:** I would like to make one suggestion. Did Prof. Sammis test the first and second prize of American cheese as to moisture?

**Prof. Sammis:** The first was 36 and the second was 34.6.

I would like to make a suggestion, that when next year you offer any premiums or to get in the pro rata it must be understood that the cheese must test below 40, or below what the state law requires.

**Chairman:** Did you have any above 40?

**Prof. Sammis:** I think we did.

**Chairman:** I think it would be a good suggestion. Another suggestion before we conclude is concerning our sessions. We are going to meet again in this same place, but if you knew what a job it is to get these sessions started in the morning, the same in the afternoon. The supply men want you and we want you, and I would like to get the advice of this convention as to whether this suggestion would be agreeable or not. My idea is to have afternoon sessions of our program and forenoon sessions with the supply men. Close the door at noon and you can’t get in there until after this session is over.

**Mr. Kalk:** I make that as a motion. It is pretty nearly eleven o’clock before we get started.

The motion was duly seconded.

**Member:** I think that suggestion is well taken. Of course the supply men come here to show off their goods, but the main object of the cheese makers in coming here is for the educational purpose and we want to get them all in here in this assembly.

The motion was duly carried.

**Chairman:** We stand adjourned, the meeting is closed.