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Annual report of the Dairy and Food Commissioner of Wisconsin. For the period ending June 30, 1919. 1919

State Dairy and Food Commissioner

Madison, Wisconsin: Democrat Printing Company, 1919

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ANNUAL REPORT

Dairy and Food Commissioner
OF WISCONSIN

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REPORT OF THE

COMMISSIONER OF DAIRY AND FOOD



WISCONSIN STATE PRINTING OFFICE

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ANNUAL REPORT

OF THE

Dairy and Food Commissioner
OF WISCONSIN

For the Period Ending June 30, 1919

GEORGE J. WEIGLE,

Dairy and Food Commissioner

Ex Officio

State Superintendent of Weights and Measures



MADISON, WISCONSIN

1919

DAIRY AND FOOD COMMISSIONERS OF WISCONSIN

H. C. THOM -----	May 29, 1889, to May 28, 1891
D. L. HARKNESS -----	May 28, 1891, to June 11, 1894
THOMAS LUCHSINGER -----	June 27, 1894, to Feb. 7, 1895
H. C. ADAMS -----	Feb. 7, 1895, to May 1, 1892
J. Q. EMERY -----	Dec. 24, 1902, to Feb. 10, 1915
GEO. J. WEIGLE -----	Feb. 10, 1915,

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1918/19

ORGANIZATION OF THE COMMISSION

GEORGE J. WEIGLE, Dairy and Food Commissioner, *ex officio* State Superintendent of Weights and Measures.

RICHARD FISCHER, Ph. D., Consulting Director of Chemical Laboratory.

E. L. ADERHOLD, Assistant Commissioner (to March 31, 1919).

C. E. LEE, Assistant Commissioner.

HARRY KLUETER, Ph. G., Chemist.

RALPH W. SMITH, Chief Inspector of Weights and Measures.

M. L. WALTER, Secretary to Commissioner.

MARY JANES, Stenographer (to August 8, 1918).

RUTH NERDRUM, Stenographer.

LOUENA FINDORFF, Stenographer and Bookkeeper.

AGNES NEUBAUER, Stenographer (to October 5, 1918).

VERA HODGIN, Stenographer.

MINERVA NORMAN, Stenographer (from January 6, 1919).

ELIZABETH KRUSE, Stenographer (November 1-December 15, 1918).

GERTRUDE MILLER, Stenographer (August 19-31, 1918).

MARIE SACHS, Stenographer (January 27-May 17, 1919).

G. A. SERVIS, Stenographer (September 10, 1918-January 15, 1919).

W. A. BRANNON, Assistant Chemist (to October 15, 1918).

I. R. HOWLETT, Assistant Chemist.

FRANCIS C. KRAUSKOPF, Ph. D., Assistant Chemist (to October 1, 1918).

C. A. KROHN, Assistant Chemist (from December 16, 1918).

PHILIP QUENTMEYER, Assistant Chemist (January 28-June 15, 1919).

GEORGE EIGENBERGER (to November 30, 1918).

C. J. KREMER.

W. A. VOIGT.

L. D. STEPHENSON (from June 1, 1919).

Food Inspectors.

JAMES VAN DUSER.

R. B. SOUTHARD (to April 30, 1919).

FRED MARTY (to October 1, 1918).

JACOB LEHNHERR.

S. B. COOK.

S. J. DUFNER (to April 12, 1919).

F. S. HANSON.

OSCAR KNUDSON (to October 22, 1918).

H. W. DESEBROCK (April 21-June 1, 1919).

M. T. SHERWOOD (from April 1, 1919).

GEO. H. STUEBER (from June 1, 1919).

R. R. CROSBY (from April 22, 1919).

W. A. STEWART (from June 9, 1919).

Dairy and Food Inspectors.

GEORGE WARNER.

B. A. HASS.

WM. P. STERNS.

H. L. BORNHEIMER.

J. E. BOETTCHER.

4 *Report of Wisconsin Dairy and Food Commissioner.*

CHAUNCEY BECKWITH.

J. M. KELLIHER.

GEO. D. GILMAN.

Sealers of Weights and Measures.

LEO BRENNAN, Junior Sealer of Weights and Measures (to August 10, 1918).

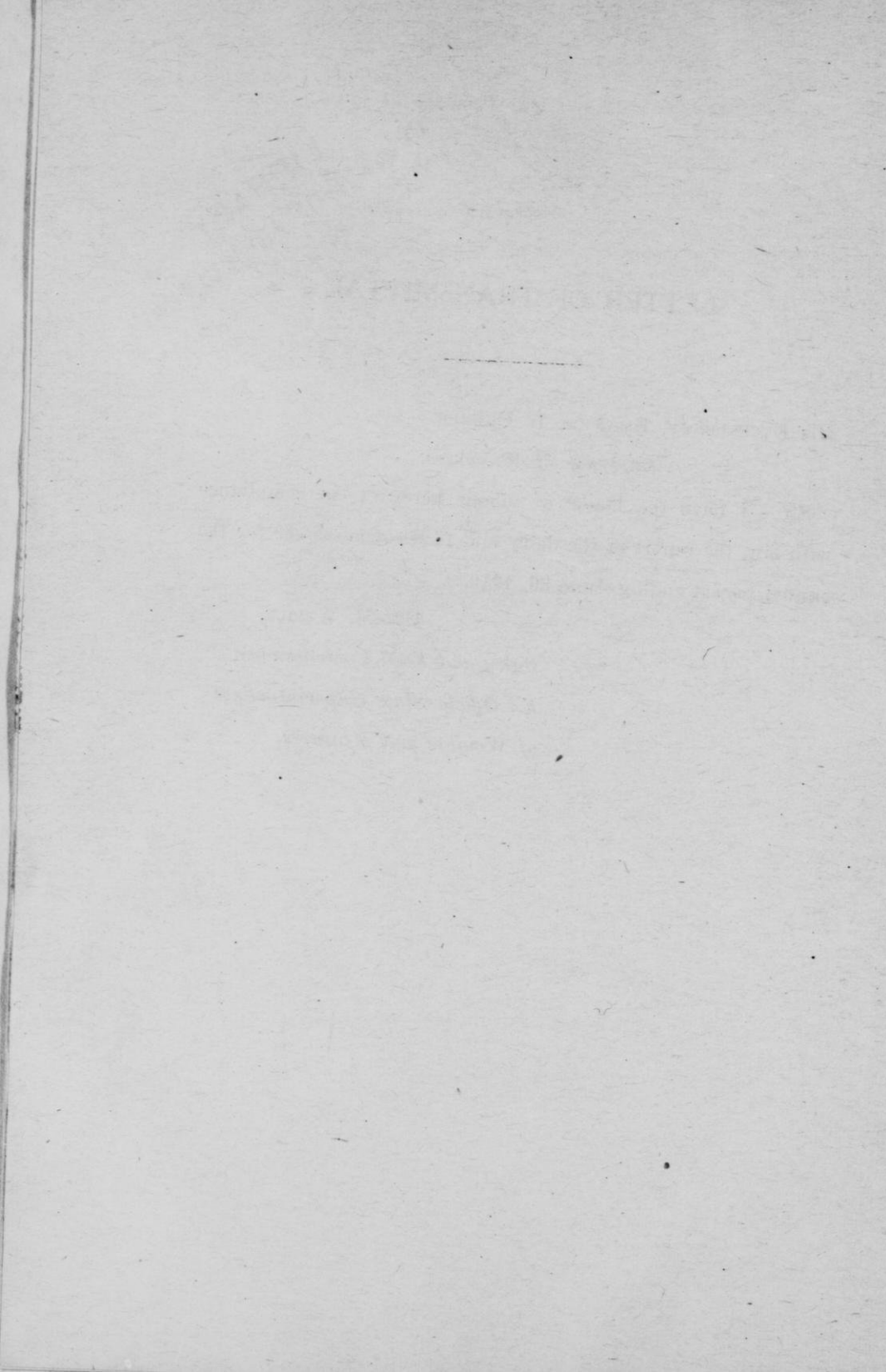
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LETTER OF TRANSMITTAL

His EXCELLENCY, EMANUEL L. PHILIPP,
Governor of Wisconsin.

Sir:—I have the honor to submit herewith, in compliance with law, the report of the dairy and food commissioner for the annual period ending June 30, 1919.

GEO. J. WEIGLE,
Dairy and Food Commissioner
Ex Officio State Superintendent
of Weights and Measures.



REPORT OF COMMISSIONER

In submitting my report as dairy and food commissioner for the fiscal year ending June 30, 1919, I wish to voice my firm conviction that the activities of this department have resulted in enormous benefits to the people and industries of the state. That many of these benefits are more or less intangible and cannot be expressed in terms of dollars and cents makes them none the less real. That much of the work of the department consists of preventing rather than correcting abuses detracts in no way from the good accomplished. This is particularly true of the work of food inspectors and chemists in safeguarding the health of the people and protecting them from adulterated products masquerading under the guise of products of quality.

Elsewhere in this report appear detailed discussions of the work of the various divisions,—food, dairy, and weights and measures; and considering these individual reports as a whole a summation of the work of the entire organization shows that the department is larger, its activities more varied, its organization more cohesive and its work more valuable than it has ever been before. This condition may be explained by the fundamental principles upon which the work of the department is based—a high standard of quality for food products with all that is embraced in that comprehensive expression; accuracy for weighing and measuring instruments; and a fair and common sense enforcement of the laws which it is the duty of the commissioner to administer.

During the past year the department has had many cases in court and in several instances actions have been brought against the commissioner to restrain him from enforcing certain provisions of the Statutes. A number of cases have been carried to the state Supreme Court, notably the Trading Stamp and Oleomargarine cases, and one case was decided by the U. S. Supreme Court. This latter decision affects not only Wisconsin alone but is of vital interest to every food department in the United States. I refer to the so-called Benzoate of Soda case (discussed in greater detail below) in which the authority of a state to enforce laws relating to the ingredients of food products was upheld. This was a signal victory for Wisconsin and was the culmination of a bitter fight extending over a period of two years. Specifically it affirms the right of this department to prevent the sale, in this state, of articles of food containing benzoic acid or benzoates; but the principle of state regulation which is involved is of even greater importance and has established a most valuable precedent.

The personnel of the department has suffered during the past year as a result of the resignation of no less than seven employes. The loss of Mr. E. L. Aderhold, one of the assistant commissioners and an authority on cheese, a man who had devoted many years to the service of the state, was keenly felt; and the work of the department was further hampered by the permanent loss of three creamery and cheese factory inspectors, one food inspector, and two of the office employes, and by the temporary absence of two others while engaged in war service. Those who resigned are now engaged in more lucrative employment elsewhere. Although it is an unfortunate situation, it is impossible for us to compete with outside agencies in the matter of salaries, and as head of the department the difficult choice is imposed upon me of retaining valued employes at increased salaries and consequently restricting the volume of work possible, or of accepting their resignations and trying to maintain the former quantity of work with employes of less experience. An effort has been made by careful organization and the exercise of rigid economy to offset these conditions to some extent and while the results have not been entirely satisfactory, I am glad to say in spite of all our handicaps, by reason of the splendid cooperation which has been evidenced by each individual member of the department, we have set a record of accomplishment of which we may be justly proud; and I wish to take this opportunity of expressing my personal appreciation for the assistance and cooperation of my associates in this department.

During the 1919 session of the legislature important laws coming under the jurisdiction of this department were enacted as follows:

1. Licensing of cream buying and milk receiving stations.
2. Making the manufacturer of cheese containing an excess amount of moisture equally guilty with the person selling or offering for sale such cheese.
3. Licensing of condenseries and canneries.
4. Limiting the moisture in brick cheese to 42%.
5. Requiring the dairy and food commissioner when creditably informed that the law relating to unfair discrimination in buying milk, cream, and butter fat has been violated, to make investigation and report results to attorney general and secretary of state.
6. Requiring the thorough washing and cleansing of cans, bottles and other vessels used for milk, cream or other dairy products and the return of said containers within 72 hours after the contents is removed.
7. Relating to the sale and delivery of bread and rolls; also prohibiting the return of bread or rolls by any consumer or other purchaser to dealer, unless the bread or rolls are imperfectly prepared or baked or are not palatable or nutritious.

Following are brief summaries of some of the important cases affecting the work of the department which were decided during the past year:

Trading Stamp Case: This case was started in Milwaukee on the question of the right to appoint an agent. Lawrence W. Halsey, circuit

judge, ordered that the dairy and food commissioner be restrained from prosecuting Wisconsin merchants under the Trading Stamp Act, Sec. 1747m—1, for appointing agents to redeem stamps issued by such merchants. Case was carried to the supreme court of Wisconsin and said court affirmed the order of Judge Halsey.

Boric Acid Case: Case was brought by the state against J. L. McCarthy. Mr. McCarthy sold an article used and intended for use as an ingredient in the composition of food and used and intended for use in the preparation of food, said article containing boric acid, contrary to the provisions of section 4601e of the Statutes. This article of food was known as Mrs. Price's Canning Compound and was made up of approximately 95% boric acid and approximately 5% sodium chloride or common salt. The court held:

1. That boric acid as a preservative in food is injurious to health.
2. That no article of food should be sold which contains boric acid.
3. That boric acid comes within the definition of food when it becomes a part of the composition prepared to be taken into the human system.

Judge Hoppmann said: "Assuming that the three points above set forth are properly deducible from the wording of the two sections of the Statutes above set forth, and then add to them as a fourth point that the defendant admits that the compound in question contained boric acid, and that the compound in question was sold with the *intention of being used* as a preservative and to be taken into the human system, then does not such sale come squarely within the wording of those provisions of the two sections of the Statutes, last above quoted, and is not such sale a violation thereof— It does appear to this court that it is. It seems to be a logical conclusion to say after the legislature had determined for itself that boric acid is injurious to health, that their object in enacting the Statute was to keep boric acid not only out of the human systems of those who eat food commercially prepared, but out of the human systems of those who prepare their own food as well. It seems only fair to assume that the legislature was impartial enough to legislate for all of the citizens of the state of Wisconsin alike and not for the protection of those only who are able to purchase their food already prepared. That they intended to protect the human systems of the great mass of citizens who would hardly know that there is any difference in the food value of this compound and 'Horlick's Malted Milk'. In short, that the legislature accomplished what they set out to do."

Benzoate of Soda Case: This case was brought by the Curtice Brothers Company, a New York corporation, in the District Court of the United States for the Western District of Wisconsin, to restrain the dairy and food commissioner of Wisconsin from enforcing certain laws of the state, especially section 4601g. That section makes it unlawful to sell any article of food that contains benzoic acid or benzoates. The Curtice Brothers Company makes certain articles from fruit, and adds benzoate of soda as a preservative. It puts them in glass bottles

and jars properly labelled under the Food and Drugs Act (June 30, 1906), packs the bottles and jars in wooden cases containing a number of the same, and ships the cases from its factory in New York to customers in Wisconsin among others. The single bottles are sold in the retail trade, and their contents are served to guests in restaurants and hotels. The defendant disavowed any contention that the state laws affected or purported to affect sales by the importer. In the unbroken wooden packages containing the bottles and the decree treated that subject as taken out of the case. But the bill went farther and setting up a decision, incorporated in a regulation under the Food and Drugs Act, that benzoate of soda is not injurious to health and that objection would not be raised to it under the Act if each container should be plainly labelled, contended that under the Food and Drugs Act and the Commerce Clause of the Constitution, the Wisconsin law was invalid even as applied to domestic retail sales of single bottles or the contents of single bottles of the plaintiff's goods. The District Court made a decree following the prayer of the bill but the case was appealed to the U. S. Supreme Court, where the decree was reversed. The following is taken from the opinion of the Supreme Court of the United States, issued January 7, 1919:

"The argument in support of the decree contends in various forms that the sale of the individual bottles when removed from the original package after entering the State, still is a part of commerce among the states, since the Act of Congress as to misbranding applies to them. But the Food and Drugs Act does not change or purport to change the moment at which an object ceases to move in interstate commerce. It imposes an obligation to label the bottles severally, although contained in one original package, as of course it may. *Seven Cases of Eckman's Alterative v. United States*, 239 U. S. 510, 515, 516. It provides for seizure and condemnation of misbranded or adulterated articles that have been transported from one state to another, although the transit is at an end, while the articles remain unsold or in original unbroken packages, as again it may. There is no reason why a lien *ex delicto* should be lost by the end of the journey in which the wrong was done. The two things have no relation to each other. *Hipolite Egg Co. v. United States*. 220 U. S. 45, 57, 58. Finally the duty to retain the label upon the single bottles does not disappear at once. For reasons stated in *McDermott v. Wisconsin*, 228 U. S. 115, if the state could require the label to be removed while the bottles remained in the importer's hands unsold, it could interfere with the means reasonably adopted by Congress to make its regulations obeyed. But all this has nothing to do with the question when interstate commerce is over and the articles carried in it have come under the general power of the state. The law upon that point has undergone no change.

"The Food and Drugs Act indicates its intent to respect the recognized line of distinction between domestic and interstate commerce too clearly to need argument or examination of its language. It naturally would, as the distinction is constitutional. The fact that a food or drug might be condemned by Congress if it passed from state to state, does not carry an immunity of foods or drugs, making the same passage, that it does not condemn. Neither the silence of Congress nor the decision of officers of the United States have any authority

beyond the domain established by the Constitution. *Rast v. Van Deman & Lewis Co.*, 240 U. S. 342, 362. When objects of commerce get within the sphere of state legislation the state may exercise its independent judgment and prohibit what Congress did not see fit to forbid. When they get within that sphere is determined, as we have said, by the old long-established criteria. The Food and Drugs Act does not interfere with state regulation of selling at retail. *Armour & Co. v. North Dakota*, 240 U. S. 510, 517. *McDermott v. Wisconsin*, 228, U. S. 115, 131. Such regulation is not an attempt to supplement the action of Congress in interstate commerce by the exercise of an authority outside of that commerce that always has remained in the states."

Oleomargarine Case: A complaint was brought against H. B. Essex for the sale of oleomargarine which the state held was of a color which was in semblance of yellow butter. This case was tried in the Superior Court, Dane County. The jury found the defendant guilty and notice of appeal has been given.

Egg Substitutes: Several cases for the sale of egg substitutes, falsely branded and fraudulently advertised, were brought by the state and convictions secured in each case. In one instance, the defendant appealed from the District Court of Milwaukee County to the Circuit Court. The Circuit Court upheld the decision of the District Court.

The following is a summary of analysis, inspections, prosecutions, etc., made during the period from July 1, 1918 to June 30, 1919 inclusive. This summary, however, covers only a portion of the activities of the department of Dairy and Food and Weights and Measures.

Samples of food analyzed by chemists	1,052
Sanitary inspection of groceries, meat markets, etc.	3,863
Sanitary inspections of bakeries	508
Sanitary inspections of confectioneries	236
Sanitary inspections of factories	223
Cheese factory inspections	3,194
Butter factory inspections	1,026
Cheese maker inspections	3,200
City milk inspections	407
Dairy inspections	2,210
Total number of weighing and measuring appliances tested,	
(field)	138,298
(office)	782
Packages weighed by dealers for delivery reweighed by in-	
spector	15,104
Convictions	213

In addition to these activities it is the duty of the department to license cheese factories, butter factories, cheese makers, butter makers, confectioneries, soda water plants and cold storage warehouses, and to see that these licenses are renewed from year to year. While the licensing of these plants has increased the work of this department enormously, not only in making inspections, but also in keeping records of all applications and reports, the results have been gratifying. Licensing has been instrumental in causing the erection of new buildings and

the improvement of old buildings, and it has brought about marked changes in the sanitary condition of these places. These statements apply especially to the so-called fish houses and bottling plants.

The condition of milk delivered to factories and condensaries as well as market milk has required the attention and time of inspectors. When such inspections are made the cans containing the milk are also examined. As a result of this work it is evident that there is room for improvement in the condition of those cans. This work has also brought to light the fact that too many dealers are using bottles belonging to competitors. This practice is in violation of the branding law.

Since the passage of the law regulating the moisture in American cheese, considerable time has been spent by inspectors of this department in determining whether or not American cheese containing more than 40% of moisture was being manufactured and sold. Information on this subject indicates that more care on the part of cheese makers, operators and dealers must be exercised so that cheese may be manufactured in compliance with law.

Our laboratory is constantly kept busy making analyses of food, drugs, linseed oil, linseed oil compounds, etc., to find out if they are adulterated or misbranded, or in any way not in compliance with the law. It would be misleading to attempt to give the percentage of adulterated or misbranded samples, as such percentage would not represent the condition of the markets of the state, for as a rule only samples suspected of being in violation of law are sent to the chemist for analysis. Much of the chemist's time is spent in connection with new foods which are found on the market. Egg substitutes and lemon pie fillings are fair examples of such foods. War time conditions and the high prices of foods have had their effect on the quality of products sold in the state. Our work has shown that the adulteration and misbranding of food is increasing as a result of such conditions. This has naturally increased the work in the laboratory as well as the work of the inspectors.

The trading stamp law has taken some time and attention. There have been some questions as to the constitutionality of the law, and as a result three decisions have been rendered by the supreme court of the state. While much time has been necessary to take care of matters coming up in connection with this law, it could not be properly enforced during the time the cases were pending, but what has been done has shown the necessity of such a law. It has also brought to light the innumerable coupons and kinds of trading stamps which are being used.

Weights and measures is another branch of work belonging to the department. The impression is quite common that errors in weighing are due almost entirely to defective or faulty scales, but such is far from true. If the department simply devoted its time to the testing of weighing and measuring devices, it would be doing only part of its work. Try-out work—the reweighing of sealed packages on the grocers'

shelves and packages put up by the grocers—is a very important phase of weights and measures work.

Besides the actual testing of weighing and measuring appliances, the department has general supervision over the work performed by the thirty-six city sealers of weights and measures in the state. The law requires that each city of 5,000 or more inhabitants have a city sealer to look after the weighing and measuring appliances within the city. These sealers are guided in their work by the tolerances and specifications and regulations issued by this department. In this branch of the work a service is rendered the public which is often greatly undervalued.

In concluding my report I wish to invite your attention to the annexed, detailed reports; that of Carl E. Lee, Assistant Commissioner and Dairy Specialist, on the subject of dairies, creameries and cheese factories; that of Harry Klueter, Chief Chemist, on the subject of food inspection and chemical analyses; and that of Ralph W. Smith, Chief Inspector of Weights and Measures, on the subject of weights and measures.

I wish to say further that I am a firm believer in the future growth of Wisconsin's dairy industry and of Wisconsin's dairy and food department. Calls for assistance reach us in constantly increasing numbers from all parts of the state; the scope of our work is being constantly broadened by the passage of additional laws, the enforcement of which is placed in our hands; the need for increased activity is constantly growing as the great dairy industry of our state grows and as our markets are invaded by the manufacturers of countless new food products; in fact, the possibilities for service to the people and industries of our state seem almost limitless. For us to realize these possibilities, to utilize the opportunities which surround us on every hand, to crystallize and bring into being the potential benefits which the future holds, is merely to justify the motto upon the Great Seal of Wisconsin, "Forward".

REPORT BY MONTHS OF FOODS IN COLD STORAGE FROM JULY, 1918, TO JULY, 1919.

(The amounts given represent pounds except in the case of eggs in shell, it represents dozens)

Articles	July	August	September	October	November	December	January	February	March	April	May	June
Meats:												
Beef (all kinds).....	1,303,540	1,196,534	1,495,659	1,940,974	1,939,662	2,140,639	2,332,453	2,204,301	2,085,508	1,875,188	1,455,102	971,061
Veal	86,041	41,612	60,368	98,410	105,090	123,727	183,665	80,005	90,653	100,515	123,810	66,871
Mutton and lamb.....	66,479	64,221	78,128	164,272	151,685	164,362	167,231	112,418	99,855	71,460	57,879	48,614
Pork (all kinds).....	2,579,734	2,069,951	1,747,312	1,813,323	416,205	350,887	664,960	1,059,586	1,565,527	937,060	1,446,214	1,218,891
Lard	610,510	812,568	2,004,508	4,882	4,117	3,016	25,693	6,981	6,575	2,368	1,983	330
Fish	719,189	945,796	963,538	1,235,297	3,046,332	3,128,055	2,394,385	1,626,783	856,510	575,660	640,222	538,818
Poultry	47,022	36,617	58,167	163,180	404,783	536,674	500,526	513,425	429,095	310,926	206,863	72,975
Game	2,225	3,680	3,816	3,840	1,626	842	4,614	14,709	13,365	13,251	13,253	11,846
Eggs, in shell.....	2,797,749	3,004,341	3,131,280	2,286,012	1,329,890	435,784	68,685	11,640	96,750	1,488,830	2,597,096	2,641,956
Eggs, out of shell.....	13,832	19,126	20,994	21,915	16,027	21,664	11,407	5,435	3,132	7,355	19,116	123,980
Butter	659,314	465,547	270,228	412,988	338,533	238,862	142,174	108,855	61,500	14,070	165,717	467,739
Oleomargarine	2,008	3,380	2,290	13,582	11,198	5,927	9,338	2,738	3,216	3,732	5,054	3,922

CONVICTIONS

Date	Defendant	Cause of Action	Trial Judge	Fine or Forfeiture
1918				
July 2	Louis Falck, Lena, R. 1.....	Maintaining cheese factory in an unsanitary condition.	James A. Donlevy, Oconto.....	\$25 and costs.
July 10	J. W. Brooks, Waupaca.....	Maintaining an unsanitary grocery.....	C. F. Youngman, Wautoma.....	\$25 and costs.
July 11	Martin and Geo. Burmeister, North Milwaukee.	Maintaining premises and utensils in an unsanitary condition.	Geo. Page, Milwaukee.....	\$25 and costs.
July 13	Herman Wondra, Campbellsport.	Maintaining cheese factory premises and utensils in an unsanitary condition.	J. E. Carew, Fond du Lac.....	\$50 and costs.
July 16	Henry Dahlke, Verona.....	Selling adulterated milk.....	A. C. Hoppmann, Madison.....	\$25 and costs.
July 19	E. E. Tabor, Weyerhaeuser.....	Manipulating and overreading the Babcock test in buying cream.	C. C. Kile, Ladysmith.....	\$25 and costs.
July 19	Peter Goetz, Hartford.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	Peter Looser, Hartford.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	Wm. Zurn, Hubertus.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	John Grunnagle, Hartford.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	Frank Kohler, Hartford.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	Geo. Jacob, Hartford.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	Frank Pringer, Hubertus.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	Wm. Doon, Hubertus.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	Robt. Koehler, Hubertus.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	Frank Murkel, Hubertus.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	Geo. Hollenstein, Hubertus.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	Peter Simon, Hubertus.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	J. Prisingen, Hubertus.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 19	Nie Hoffmann, Hubertus.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 23	Joe H. Blegen, Woodville.....	Engaged as a cheese maker without first obtaining a permit or license.	C. A. Desney, Hudson.....	\$25 and costs.
July 23	Blasious Mayer, Hartford.....	Offering for sale unsanitary milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
July 24	Anton Vasas, Carrollville.....	Offering and exposing for sale foods not properly protected from dust, flies, filth, etc.	Geo. E. Page, Milwaukee.....	\$25 and costs.
July 25	Nick Hattauer, Bloomer.....	Selling adulterated milk to a condensery..	F. W. Jenkins, Chippewa Falls....	Fine remitted on payment of costs.

CONVICTIONS—continued.

Date	Defendant	Cause of Action	Trial Judge	Fine or Forfeiture
1918				
July 25	Nick Nayer, Bloomer.....	Selling adulterated milk to a condensery..	F. W. Jenkins, Chippewa Falls....	Fine remitted on payment of costs.
July 26	Chas. Brandow, Antigo.....	Delivering unsanitary milk to a cheese factory.	T. W. Hogan, Antigo.....	\$25 and costs.
July 27	Peter H. Riesch, West Bend.....	Operating an unclean and unsanitary cheese factory.	C. S. Hayden, West Bend.....	\$50 and costs.
July 30	Schwartz & Markie, Tomah.....	Maintaining store and market in an unsanitary condition.	E. Bartels, Tomah.....	\$25 and costs.
July 31	Louis Nielsen, Green Bay.....	Handling, preparing and earing for meat in an unclean manner.	N. J. Monahan, Green Bay.....	\$25 and costs.
Aug. 5	John Mueller, Brodhead.....	Selling adulterated milk.....	H. N. B. Caradine, Monroe.....	\$25 and costs.
Aug. 7	John Braun, Campbellsport.....	Offering for sale unsanitary milk.....	H. G. Paas, Campbellsport.....	\$25 and costs.
Aug. 7	Herman Wondra, Campbellsport.....	Manufacturing a food product from unsanitary milk.	H. G. Paas, Campbellsport.....	\$25 and costs.
Aug. 7	L. L. Wallace, West Lima.....	Preparing food for man and not protecting same from filth, dust and other contamination.	.....	Fine suspended on payment of costs.
Aug. 8	Robt. Menning, Mattoon.....	Selling milk in an unclean can.....	E. J. White, Mattoon.....	\$25 and costs.
Aug. 9	Tony Hassmer, Bloomer.....	Selling adulterated milk to a condensery..	F. W. Jenkins, Chippewa Falls....	Fine remitted on payment of costs.
Aug. 9	Alex. Kriewaldt, Birnamwood.....	Maintaining cheese factory and utensils in an unsanitary condition.	Geo. Mosier, Birnamwood.....	\$25 and costs.
Aug. 10	Fred Stapel, Clintonville.....	Maintaining cheese factory and utensils in an unsanitary condition.	J. Patterson, Clintonville.....	\$25 and costs.
Aug. 10	Adolph Deick, Tigerton.....	Selling cheese containing more than 40% moisture.	E. J. White, Mattoon.....	\$25 and costs.
Aug. 13	Charles Kittell, Green Bay.....	Maintaining cheese factory in an unsanitary condition.	N. J. Monahan, Green Bay.....	\$25 and costs.
Aug. 14	Albert Schultz, Cecil.....	Maintaining cheese factory and utensils in an unsanitary condition.	Chris. Bonnin, Bonduel.....	\$25 and costs.
Aug. 15	Jos. Annoye, Oconto Falls.....	Maintaining cheese factory and utensils in an unsanitary condition.	Chris. Bonnin, Bonduel.....	\$25 and costs.
Aug. 16	Otto Rezek, Pulaski.....	Maintaining cheese factory and utensils in an unsanitary condition.	F. J. Glowinski, Pulaski.....	\$25 and costs.
Aug. 17	W. C. Starkey, Richland Center..	Manufacturing whey cream as food for man and not protecting it from filth, flies and other contamination.	.....	Fine suspended.

Aug. 22	S. Clouter, Somerset.....	Selling adulterated milk to a cheese factory.	A. R. Kibby, New Richmond.....	Fine suspended on payment of costs.
Aug. 22	F. Parent, Somerset.....	Selling adulterated milk to a cheese factory.	A. R. Kibby, New Richmond.....	Fine remitted on payment of costs.
Aug. 23	Jos. Kunz, Elkhart Lake.....	Maintaining cheese factory and utensils in an unsanitary condition.	D. Mahlstead, Plymouth.....	\$25 and costs.
Aug. 23	J. C. Lang, Racine.....	Preparing, handling and caring for food in an unclean manner.	Wm. Smieding, Racine.....	\$20 and costs.
Aug. 23	Nels Nelson, Racine.....	Preparing, handling and caring for food in an unclean manner.	Wm. Smieding, Racine.....	\$20 and costs.
Aug. 23	Olaf Nelson, Racine.....	Preparing, handling and caring for food in an unclean manner.	Wm. Smieding, Racine.....	\$20 and costs.
Aug. 29	Jos. Tufusino, Racine.....	Exposing food to unsanitary conditions..	Wm. Smieding, Racine.....	\$25 and costs.
Aug. 29	Earl E. Korte, Campbellsport....	Maintaining cheese factory and utensils in an unsanitary condition.	D. Mahlstead, Plymouth.....	\$25 and costs.
Aug. 29	Cletus Neis, Gilmanton.....	Maintaining premises and utensils in an unsanitary condition.	H. J. Connor, Mondovi.....	\$25 and costs.
Aug. 30	Eugene Coisman, Lena.....	Producing whey cream under unsanitary conditions and maintaining utensils in a dirty condition.	J. A. Donlevy, Oconto.....	\$25 and costs.
Aug. 31	Paul Friederich, Wausau.....	Obstructing inspector in performance of his official duties.	Louis Marchetti, Wausau.....	Fine remitted on payment of costs.
Aug. 31	Fred Heibel, Gilmanton.....	Maintaining cheese factory and utensils in an unsanitary condition.	Jos. Connor, Mondovi.....	\$25 and costs.
Sept. 4	Ferd. Schmidt, Jr., Milwaukee..	Exposing bakery goods to rats and other vermin and maintaining an unclean bakery.	Geo. Page, Milwaukee.....	Fine suspended on payment of costs.
Sept. 5	Geo. Bicken, Kenosha.....	Handling, preparing and caring for food in an unclean manner.	J. Tully, Kenosha.....	\$30 and costs.
Sept. 8	H. W. Goodrich, Delavan.....	Operating a bakery without ample toilet facilities.	A. B. Calkins, Delavan.....	\$20.
Sept. 10	Jos. Kurkaski, Amherst.....	Selling hamburger containing sodium sulphite.	J. A. Murat, Stevens Point.....	\$25 and costs.
Sept. 13	Leslie Yapp, Ridgeway.....	Delivering milk in a dirty, rusty can.....	T. H. Arthur, Dodgeville.....	\$25 and costs.
Sept. 13	Herman Wondra, Campbellsport.	Maintaining cheese factory and utensils in an unsanitary condition.	R. C. Fairbank, Fond du Lac....	\$100 and costs.
Sept. 18	Gould, Wells & Blackburn, Madison.	Selling adulterated potato flour.....	A. C. Hoppmann, Madison.....	\$25 and costs.
Sept. 22	Wm. Flath, Plymouth.....	Acting as cheese maker after license had been revoked.	D. Mahlstead, Plymouth.....	\$25 and costs.
Sept. 25	Herman Guenther, Reeseville.....	Furnishing adulterated milk to a cheese factory.	Emil Klentz, Reeseville.....	\$25 and costs.
Sept. 25	S. F. La Piana, Milwaukee.....	Selling adulterated olive oil.....	Geo. Page, Milwaukee.....	\$100 and costs.

CONVICTIONS—Continued

Date	Defendant	Cause of Action	Trial Judge	Fine or Forfeiture
1918				
Sept. 26	H. Kramp and B. Gottschalk, Beaver Dam.	Preparing and handling bakery goods in an unclean manner.	J. D. Lyons, Beaver Dam.....	\$20 and costs.
Sept. 27	F. E. Zuehlke, Oshkosh.....	Failure to keep bakery goods covered while distributing them.	A. H. Goss, Oshkosh.....	\$25 and costs.
Sept. 27	Wm. Ackermann, Oshkosh.....	Failure to keep bakery goods covered while distributing them.	A. H. Goss, Oshkosh.....	\$25 and costs.
Sept. 27	Pauline Heiss, Oshkosh.....	Failure to keep bakery goods covered while distributing them.	A. H. Goss, Oshkosh.....	\$25 and costs.
Sept. 27	James Holley, Oshkosh.....	Failure to keep bakery goods covered while distributing them.	A. H. Goss, Oshkosh.....	\$25 and costs.
Sept. 28	Aug. Koehler, Hixton.....	Delivering unsanitary milk to a cheese factory.	C. J. Van Schoeck, Black Riv. Falls	\$25 and costs.
Sept. 28	Cornelius Janisse, Oostburg.....	Maintaining cheese factory and utensils in an unsanitary condition.	D. Mahlsted, Plymouth.....	\$50 and costs.
Sept. 29	Ripon Produce Co., Ripon.....	Selling short weight butter.....	Roy Reed, Ripon.....	\$25 and costs.
Oct. 3	W. H. Graskamp, Kewaskum.....	Maintaining cheese factory and utensils in an unsanitary condition.	D. Mahlsted, Plymouth.....	\$25 and costs.
Oct. 5	Joseph D. Dhuey, Casco.....	Using false weights in buying cattle.....	Chas. Hoffman, Kewaunee.....	\$10 and costs.
Oct. 5	Abraham Hays, Hancock.....	Selling less butter than the quantity represented.	C. F. Youngman, Wautoma.....	\$1 and costs.
Oct. 7	Emery Ulrich, Sparta.....	Having in possession and under control with intent to sell unsanitary milk.	H. J. Masters, Sparta.....	\$50 and costs.
Oct. 9	John Borchardt, Beaver Dam....	Selling hamburger containing sodium sulphite.	J. D. Lyons, Beaver Dam.....	\$30 and costs.
Oct. 10	Wm. Firehammer, Horicon.....	Selling rotten eggs.	J. E. Sawyer, Horicon.....	\$25 and costs.
Oct. 10	Chas. C. Nelson, Mgr., Racine Pure Milk Co., Racine.	Selling adulterated cream and not protecting cream from flies.	Wm. Smieding, Racine.....	\$25 and costs.
Oct. 12	E. Bort, Windsor.....	Selling adulterated milk.....	A. C. Hoppmann, Madison.....	\$25 and costs.
Oct. 15	Melvin Larkee, Marshfield.....	Maintaining cheese factory and utensils in an unsanitary condition.	R. E. Andrews, Marshfield.....	\$25 and costs.
Oct. 15	John Helts, Fort Atkinson.....	Offering for sale adulterated milk.....	Chas. A. Buss, Jefferson.....	\$25 and costs.
Oct. 15	Albert Christian, Lake Mills.....	Offering for sale adulterated milk.....	Chas. A. Buss, Jefferson.....	\$25 and costs.
Oct. 15	F. Bogenschneider, Johnson Creek	Offering for sale adulterated milk.....	Chas. A. Buss, Jefferson.....	\$25 and costs.
Oct. 15	F. Bonsack, Johnson Creek.....	Offering for sale adulterated milk.....	Chas. A. Buss, Jefferson.....	\$25 and costs.
Oct. 15	C. W. Wollin, Johnson Creek....	Offering for sale adulterated milk.....	Chas. A. Buss, Jefferson.....	\$25 and costs.
Oct. 16	Mike Porter, Park Falls.....	Offering less apples than the quantity represented.	J. L. McGregor, Park Falls.....	\$10 and costs.

Oct. 18	Chas. Risse, Random Lake.....	Selling adulterated cheese.....	D. Mahlsted, Plymouth.....	\$25 and costs.
Oct. 18	Paul Luecke, Elkhart Lake.....	Selling adulterated cheese.....	O. Bassuener, Sheboygan.....	\$25 and costs.
Oct. 18	Ed Rhode, Timothy.....	Selling adulterated cheese.....	O. Bassuener, Sheboygan.....	Fine remitted on payment of costs.
Oct. 22	Julius Boyer, Watertown.....	Selling chopped meat containing sodium sulphite.	Al. Cavanaugh, Watertown.....	\$25 and costs.
Oct. 23	H. M. Scott, Waldo.....	Selling adulterated cheese.....	T. F. Volk, Plymouth.....	\$25 and costs.
Oct. 23	Theodore Specht, Sheboygan Falls	Selling adulterated cheese.....	T. F. Volk, Plymouth.....	\$25 and costs.
Oct. 24	C. D. Wetmore, Menomonie.....	Maintaining milk plant and utensils in an unsanitary condition.	P. A. Clark, Menomonie.....	\$25 and costs.
Oct. 24	Andrew Heinzelman, Watertown..	Selling rotten eggs.....	Al. Cavanaugh, Watertown.....	\$25 and costs.
Oct. 24	Mat Guelig, Calvary.....	Selling adulterated cheese.....	T. F. Volk, Plymouth.....	\$25 and costs.
Oct. 25	G. H. Tenpas, Oostburg.....	Selling adulterated cheese.....	O. A. Bassuener, Sheboygan.....	\$25 and costs.
Oct. 25	Otis Meckinnon, Sheboygan Falls.	Selling adulterated cheese.....	O. A. Bassuener, Sheboygan.....	\$25 and costs.
Oct. 25	Frank Moldenhauer, Iron Ridge..	Maintaining meat market in an unsanitary condition.	Fred Sette, Iron Ridge.....	\$25 and costs.
Oct. 26	Mike Stanish, Milwaukee.....	Selling adulterated shell eggs.....	Geo. Page, Milwaukee.....	\$25 and costs.
Oct. 30	A. C. Fox, Fond du Lac.....	Selling cold storage eggs not marked when received and when delivered to and from cold storage.	J. E. Carew, Fond du Lac.....	\$25 and costs.
Oct. 30	C. and G. Tank, Van Dyne.....	Selling short weight pound butter prints..	J. E. Carew, Fond du Lac.....	\$25 and costs.
Oct. 31	Anthony Schirpke, Edgar.....	Delivering adulterated milk to a cheese fac- tory.	J. P. Riley, Wausau.....	\$35 and costs.
Nov. 1	Theodore Sonnabend, Greenleaf..	Selling adulterated cheese.....	N. J. Monahan, Green Bay.....	\$25 and costs.
Nov. 2	O. A. Voechting, Sheboygan.....	Selling adulterated cheese.....	O. A. Bassuener, Sheboygan.....	Fine remitted on payment of costs.
Nov. 2	Albert Baehler, Seymour.....	Selling adulterated cheese.....	Henry Kreis, Appleton.....	\$25 and costs.
Nov. 16	Frank S. Bauer, Grand Rapids...	Selling adulterated milk.....	Edw. Pomainville, Grand Rapids..	\$25 and costs.
Nov. 20	Steve Koenigs, Pebbles.....	Selling adulterated cheese.....	James Carew, Fond du Lac.....	\$25 and costs.
Nov. 21	Emil Poetter, Beaver Dam.....	Selling adulterated cheese.....	Emil Klentz, Reeseville.....	\$25 and costs.
Nov. 21	Chas. Neitzel, Reeseville.....	Having in possession with intent to fur- nish to a cheese factory adulterated milk.	Emil Klentz, Reeseville.....	\$25 and costs.
Nov. 29	Edwin Bradley, Oshkosh.....	Selling adulterated milk.....	A. H. Goss, Oshkosh.....	\$50 and costs.
Nov. 30	Geo. Schmid, Stratford.....	Selling adulterated cheese.....	R. E. Andrews, Marshfield.....	\$25 and costs.
Dec. 5	Otto Hiller, Plymouth.....	Having in possession with intent to sell adulterated cheese.	D. Mahlsted, Plymouth.....	\$25 and costs.
Dec. 7	Wisconsin Cheese Producers' Fed- eration, Plymouth.....	Having in possession with intent to sell adulterated cheese.	Michael Kirwan, Sheboygan.....	\$50 and costs.
Dec. 12	Carl Wachsmuth, Gleason.....	Selling adulterated cheese.....	M. C. Porter, Merrill.....	\$25 and costs.
Dec. 18	W. P. Schmidt, Mgr., Kleismeler Co., Manitowoc.	Selling adulterated butter.....	A. H. Schmidt, Manitowoc.....	\$35 and costs.
Dec. 20	H. M. Scott, Waldo.....	Selling adulterated cheese.....	T. F. Volk, Plymouth.....	\$25 and costs.
Dec. 23	J. H. Wagner, Fond du Lac.....	Selling adulterated cheese.....	J. E. Carew, Fond du Lac.....	\$100 and costs.
Dec. 26	Chas. Nottleman, Oshkosh.....	Selling adulterated cream.....	A. H. Goss, Oshkosh.....	\$25 and costs.

CONVICTIONS—Continued

Date	Defendant	Cause of Action	Trial Judge	Fine or Forfeiture
1918				
Dec. 26	E. T. Jones, Oshkosh.....	Selling adulterated cream.....	A. H. Goss, Oshkosh.....	\$25 and costs.
Dec. 27	David Von Buren, Oshkosh.....	Selling adulterated milk.....	A. H. Goss, Oshkosh.....	\$50 and costs.
Dec. 27	A. C. Peep, Oshkosh.....	Selling adulterated cream.....	A. H. Goss, Oshkosh.....	\$25 and costs.
Dec. 28	L. A. Wrensch, Sherwood.....	Selling adulterated cheese.....	Geo. Breed, Chilton.....	\$25 and costs.
Dec. 28	Wm. C. Smith, Milwaukee.....	Selling misbranded and adulterated food, "Eggette."	Geo. Page, Milwaukee.....	\$25 and costs.
1919				
Jan. 2	C. H. Zutz, Rice Lake.....	Offering for sale adulterated cheese.....	Chas. Taylor, Barron.....	\$25 and costs.
Jan. 2	Henry Bergelin, Appleton.....	Selling adulterated milk.....	A. M. Spencer, Appleton.....	\$50 and costs.
Jan. 3	C. Denessen, Green Bay.....	Falsely advertising a food, a baking compound labeled Sa-van-egg.	N. J. Monahan, Green Bay.....	\$25 and costs.
Jan. 3	Louis Anderson, Racine.....	Preparing and storing food (horse meat) under unclean and unsanitary conditions.	Wm. Smieding, Racine.....	\$25 and costs.
Jan. 4	Frank Wittkamp, Milwaukee.....	Selling misbranded food, to wit, Sa-van-Egg.	Geo. Page, Milwaukee.....	\$25 and costs.
Jan. 8	J. A. Tiedjens, Marinette.....	Selling adulterated milk.....	Chas. C. Dally, Marinette.....	\$25 and costs.
Jan. 10	H. B. Essex, Madison.....	Selling oleomargarine held to be in semblance of yellow butter.	A. C. Hoppmann, Madison.....	\$50 and costs.
Jan. 13	F. P. Baker, St. Cloud.....	Selling adulterated cheese.....	T. F. Volk, Plymouth.....	\$25 and costs.
Jan. 13	Wm. Pauls, Rosendale.....	Selling unsanitary milk.....	R. C. Fairbank, Fond du Lac.....	Fine remitted on payment of costs.
Jan. 14	Henry Luetzow, Lake Mills.....	Selling oleomargarine held to be in semblance of yellow butter.	Chas. A. Buss, Jefferson.....	\$50 and costs.
Jan. 14	F. J. Mulvey, Random Lake.....	Selling adulterated cheese.....	D. Mahsted, Plymouth.....	\$25 and costs.
Jan. 16	E. W. Guenther, Random Lake..	Selling adulterated cheese.....	D. Mahsted, Plymouth.....	\$25 and costs.
Jan. 16	Mike Mainella, Superior.....	Selling storage eggs without informing the public of said fact.	F. S. Porter, Superior.....	\$25 and costs.
Jan. 16	Sam Titch, Superior.....	Preparing food for sale under unclean conditions.	F. S. Porter, Superior.....	\$25 and costs.
Jan. 21	H. Schroeder, Nelson.....	Serving substitute for butter at hotel without notifying guest.	H. P. Marquardt, Nelson.....	\$25 and costs.
Jan. 23	H. J. Dietsch, Mgr., Sheboygan Dairy Products Co., Green Bay	Selling adulterated butter.....	N. J. Monahan, Green Bay.....	Fine suspended on payment of costs.
Jan. 23	M. G. Douma, Mgr. and Sec., Sheboygan Dairy P. Co., Sheb'gan	Selling adulterated butter.....	N. J. Monahan, Green Bay.....	\$50 and costs.
Jan. 23	George Drexler, Sheboygan.....	Selling unsanitary milk.....	O. A. Bassuener, Sheboygan.....	\$25 and costs.
Jan. 28	C. C. Fries, Richland Center.....	Selling adulterated cream.....	W. F. Fogo, Richland Center.....	\$25 and costs.

Jan. 31	Wilson & Co., Milwaukee.....	Selling cold storage eggs as fresh eggs....	Geo. Page, Milwaukee.....	\$25 and costs.
Feb. 5	George Conlin, Oshkosh.....	Selling unsanitary milk.....	A. H. Goss, Oshkosh.....	\$25 and costs.
Feb. 8	J. H. Rowley, Racine.....	Selling adulterated eggs,—eggs below quality represented.	Wm. Smieding, Racine.....	\$25 and costs.
Feb. 12	Louis Gruenewald, Sheboygan....	Selling adulterated cheese.....	O. A. Bassuener, Sheboygan.....	Fine remitted on payment of costs.
Feb. 12	F. P. Baker, St. Cloud.....	Selling adulterated cheese.....	T. F. Volk, Plymouth.....	\$50 and costs.
Feb. 12	Louis Dexheimer, Sheboygan....	Selling adulterated milk.....	O. A. Bassuener, Sheboygan.....	Fine remitted on payment of costs.
Feb. 13	John Bobrowski, Junction City..	Delivering adulterated milk to a cheese factory.	G. L. Parks, Stevens Point.....	\$25 and costs.
Feb. 13	O. A. Voechting, Sheboygan.....	Selling adulterated cheese.....	O. A. Bassuener, Sheboygan.....	\$25 and costs.
Feb. 14	Barney A. Jarrett, Green Bay...	Having food, unfit for human consumption, in cold storage without proper markings.	N. J. Monahan, Green Bay.....	\$25 and costs.
Feb. 14	H. P. Brown, Madison.....	Short weight on car of mill feed shipped to J. Breuling, Belleville.	A. C. Hoppmann, Madison.....	\$1 and costs.
Feb. 14	Rodney Grover, Junction City...	Delivering adulterated milk to a cheese factory.	G. L. Parks, Stevens Point.....	\$25 and costs.
Feb. 18	Frank Roach, Chippewa Falls....	Selling adulterated butter.....	A. G. Stafford, Chippewa Falls...	\$25 and costs.
Feb. 18	John Britz, Stevens Point.....	Selling adulterated milk.....	G. L. Parks, Stevens Point.....	\$25 and costs.
Feb. 20	Joseph Wittkie, Rib Lake.....	Maintaining premises and utensils in an unsanitary condition.	Geo. F. Braun, Rib Lake.....	\$25 and costs.
Feb. 21	M. Diederich, Madison.....	Short measure of ½ pint on sale of 2 gallons of gasoline.	A. C. Hoppmann, Madison.....	\$1 and costs.
Feb. 27	John Stare, Rib Lake.....	Selling unsanitary milk.....	Geo. F. Braun, Rib Lake.....	\$25 and costs.
Mar. 1	Fred Stank, Larsen.....	Maintaining cheese factory premises in an unsanitary condition.	A. M. Spencer, Appleton.....	\$25 and costs.
Mar. 4	M. L. Treichel, Neillsville.....	Selling adulterated cheese.....	R. E. Andrews, Marshfield.....	\$25 and costs.
Mar. 7	Fred Greve, Thorp.....	Selling adulterated cheese.....	R. F. Kountz, Neillsville.....	\$25 and costs.
Mar. 10	J. G. Hamilton, Grand Rapids..	Selling adulterated food product, to wit, Egg-nage.	Edw. N. Pomainville, Grand Rapids	\$25 and costs.
Mar. 11	Ned Burton, Eagle.....	Selling adulterated milk.....	James E. Thomas, Waukesha.....	\$25 and costs.
Mar. 11	Robert Krause, Genesee.....	Selling adulterated milk.....	James E. Thomas, Waukesha.....	\$25 and costs.
Mar. 12	F. Vandenberg, Green Bay.....	Selling adulterated milk.....	N. J. Monahan, Green Bay.....	\$25 and costs.
Mar. 13	R. Hermann, Oshkosh.....	Selling and exposing for sale misbranded food (Sa-van-Egg).	A. H. Goss, Oshkosh.....	\$25 and costs.
Mar. 18	James Pucci, Kenosha.....	Selling adulterated olive oil.....	J. Tully, Kenosha.....	\$25 and costs.
Mar. 18	Pepin Creamery Co., Pepin.....	Selling a misbranded article of food—butter.	B. Milliron, Pepin.....	\$25 and costs.
Mar. 19	L. J. O'Reilly, Merrill.....	Selling adulterated cream.....	M. C. Porter, Merrill.....	\$25 and costs.
Mar. 19	Henry Liethen, Norrie.....	Delivering unsanitary milk to a cheese factory.	Louis Marchetti, Wausau.....	\$25 and costs.
Mar. 21	Stephen Matz, Fall Creek.....	Maintaining premises and utensils in an unsanitary condition.	J. H. Ellis, Eau Claire.....	\$25 and costs.

CONVICTIONS—Continued

Date	Defendant	Cause of Action	Trial Judge	Fine or Forfeiture
1918				
Mar. 27	Geo. Mazurine, Racine.....	Returning unwashed cream cans.....	Wm. Smieding, Racine.....	\$25 and costs.
Mar. 28	Harry Radtke, Bear Creek.....	Selling adulterated cheese.....	A. M. Spencer, Appleton.....	\$25 and costs.
April 1	Jos. Polcynski, Milwaukee.....	Selling misbranded food, Sa-Van-Eg.....	Geo. Page, Milwaukee.....	Sentence suspended on payment of costs.
April 2	Louis Horn, Withee.....	Selling adulterated cheese.....	R. F. Kountz, Neillsville.....	\$25 and costs.
April 4	Fred Larson, Cumberland.....	Selling adulterated milk.....	Chas. Taylor, Barron.....	\$25 and costs.
April 8	A. E. Guetinger, buyer, R. E. Jones Elev. Co., Cochrane	Taking 50 lbs. for a bushel of barley instead of 48 lbs.	D. H. Herold, Cochrane.....	\$5 and costs.
April 8	George Foster, Eau Claire.....	Selling adulterated food, Egg-O-Save.....	Henry McBain, Eau Claire.....	\$25 and costs.
April 11	Jas. Seller, Chippewa Falls.....	Having in possession with intent to sell unsanitary milk.	F. W. Jenkins, Chippewa Falls....	\$25 and costs.
April 11	C. Walter, Chippewa Falls.....	Selling adulterated cream.....	F. W. Jenkins, Chippewa Falls....	\$25 and costs.
April 14	O. H. Zutz, Rice Lake.....	Selling adulterated cheese.....	Chas. Taylor, Barron.....	\$50 and costs.
April 15	Lewis L. Hawver, Lake Geneva..	Selling adulterated cream.....	R. D. Short, Lake Geneva.....	\$25 and costs.
April 16	Frank Martin, Lake Geneva.....	Selling adulterated milk.....	R. D. Short, Lake Geneva.....	\$25 and costs.
April 21	John Simon, Jr., Hubertus.....	Selling adulterated milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
April 21	Nick Hoffman, Hubertus.....	Selling adulterated milk.....	C. S. Hayden, West Bend.....	\$25 and costs.
April 22	Anton Brzezinski, Edgar.....	Delivering adulterated milk to a cheese factory.	Louis Marchetti, Wausau.....	.... and costs.
May 3	Bernh. Herman, Milwaukee.....	Failing to properly cleanse soda water bottles before filling them.	Geo. Page, Milwaukee.....	\$25 and costs.
May 8	Gustav O. Gustafson, Rice Lake.	Handling and preparing food under dirty conditions.	C. A. Stark, Rice Lake.....	\$20 and costs.
May 14	Oscar Wallace, Green Bay.....	Skimming milk used in the manufacture of American cheese.	N. J. Monahan, Green Bay.....	\$50 and costs.
May 19	Aug. Westphal, Hartford.....	Maintaining cheese factory in an unsanitary condition and failure to display operator's license.	Art. Hauser, Rubicon.....	\$25 and costs.
May 19	Ben Miller, Portage.....	Selling adulterated milk to a cheese factory.	.....	\$25 and costs.
May 23	Thomas J. Bomske, Green Bay..	Maintaining unsanitary cheese factory and utensils.	N. J. Monahan, Green Bay.....	\$25 and costs.
May 23	E. L. DeKindree, Milwaukee.....	Exposing bakery goods to street dust and other contamination.	Geo. Page, Milwaukee.....	\$10 and costs.
May 26	E. H. Nehring, Milwaukee.....	Exposing bakery goods to street dust and other contamination.	Geo. Page, Milwaukee.....	\$10 and costs.

May 29	Gerald Lacher, Milwaukee.....	Offering cold storage meats for sale without proper placards.	Geo. Page, Milwaukee.....	\$25 and costs.
May 29	Jacob Kopel, Lena.....	Using an unsealed scale.....	A. E. Pelkey, Lena.....	\$10 and costs.
June 2	Mrs. Wm. Frenz, Theinsville.....	Selling adulterated milk.....	A. H. Kuhl, Port Washington.....	\$25 and costs.
June 2	Henry Sache, Cedarburg.....	Selling adulterated milk.....	A. H. Kuhl, Port Washington.....	\$25 and costs.
June 5	F. R. Smith, Racine.....	Selling adulterated (putrid) cheese and maintaining an unsanitary meat market.	Wm. Smieding, Racine.....	\$50 and costs.
June 11	E. M. Carter, Mgr., Sheboygan Dairy P. Co., Stevens Point.	Selling butter made from raw cream as and for pasteurized butter.	John Murat, Stevens Point.....	\$25 and costs.
June 11	Henry Bartel, Ixonia.....	Selling adulterated milk.....	Chas. A. Buss, Jefferson.....	\$25 and costs.
June 12	Frank Kadulski, Niagara.....	Using a false scale.....	Wm. J. Collinson, Niagara.....	\$25 and costs.
June 12	E. Nettleton, Stevens Point.....	Selling adulterated milk.....	John Murat, Stevens Point.....	\$25 and costs.
June 12	Chas. J. Schumacher, Johnson Creek.	Selling adulterated milk.....	Chas. A. Buss, Jefferson.....	\$25 and costs.
June 14	H. A. Martin, Spencer.....	Selling whey butter not properly labeled..	John A. Murat, Stevens Point.....	\$25 and costs.
June 18	Michael Kellner, Kellnersville.....	Selling misbranded flour, misbranded as to weight.	A. H. Schmidt, Manitowoc.....	Sentence suspended.
June 18	Otto Mueller, Cedarburg.....	Selling adulterated milk.....	A. H. Kuhl, Port Washington.....	\$25 and costs.
June 21	A. F. Jahnke, McFarland.....	Maintaining cheese factory premises and utensils in an unsanitary condition.	A. C. Hoppmann, Madison.....	\$50 and costs.
June 25	A. F. Westphal, Hartford.....	Maintaining cheese factory premises and utensils in an unsanitary condition.	A. C. Hoppmann, Madison.....	\$50 and costs.
June 26	Axel Olson, Mountain.....	Using a false measuring device.....	Daniel Cole, Mountain.....	\$5 and costs.
June 28	Hubert A. Kufahl, Marathon City	Maintaining utensils in an unsanitary condition.	Louis Marchetti, Wausau.....	\$25 and costs.

DISBURSEMENTS**For year End'ng June 30, 1919**

Weigle, Geo. J. Commissioner, sal. and exp.	\$3,263.20
Aderhold, E. L., asst. commissioner, sal. and exp.	2,308.83
Beckwith, Chauncey, inspector, sal. and exp.	3,080.54
Boettcher, J. E., inspector, sal. and exp.	3,024.07
Bornheimer, H. L., inspector, sal. and exp.	2,445.59
Brannon, W. A., asst. chemist, sal.	525.00
Brennan, Leo, junior sealer of weights and measures	52.90
Cook, S. B., inspector, sal. and exp.	2,484.29
Crosby, R. R., inspector, sal. and exp.	418.76
Desebrock, H. W., inspector, sal. and exp.	243.08
Dufner, S. J., inspector, sal. and exp.	2,153.05
Eigenberger, Geo., inspector, sal. and exp.	1,063.88
Findorff, Louena, stenographer and bookkeeper	840.00
Fischer, Richard, consulting director chemical laboratory, sal. and exp.	601.38
Gilman, Geo. D., inspector. sal. and exp.	2,857.08
Hanson, F. S., inspector, sal. and exp.	2,466.19
Hass, B. A., inspector, sal. and exp.	2,714.68
Hodgin, Vera, stenographer	762.50
Howlett, I. R., asst. chemist, sal. and exp.	1,759.12
Janes, Mary, stenographer	100.64
Kelliher, J. M., inspector, sal. and exp.	2,384.71
Klueter, Harry, chemist, sal. and exp.	2,400.52
Knudson, Oscar, inspector, sal. and exp.	1,081.93
Krauskopf, asst. chemist, sal.	300.00
Kremer, C. J., inspector, sal. and exp.	1,996.39
Krohn, C. A., inspector, sal. and exp.	784.90
Kruse, Elizabeth, stenographer	97.50
Lee, C. E., asst. commissioner, sal. and exp.	3,095.04
Lehnherr, Jacob, inspector, sal. and exp.	2,668.22
Marty, Fred, inspector, sal. and exp.	526.12
Miller, Gertrude, stenographer	31.45
Nerdrum, Ruth, stenographer	1,060.00
Neubauer, Agnes, stenographer	205.30
Norman, Minerva, stenographer	378.47
Quentmeyer, Philip, chemist	231.45
Sachs, Marie, stenographer	242.18
Servis, G. A., stenographer	422.22
Sherwood, M. T., inspector, sal. and exp.	485.55
Smith, R. W., chief inspector of weights and measures, sal. and exp.	1,373.15
Southard, R. B., inspector, sal. and exp.	2,373.05
Stephenson, L. D., inspector, sal.	116.66
Sterns, W. P., inspector, sal. and exp.	2,784.45

Stewart, W. A., inspector, sal.	73.33
Stueber, Geo. H., inspector, sal.	100.00
Van Duser, James, inspector, sal. and exp.	2,106.28
Voight, W. A., inspector, sal. and exp.	2,043.13
Walter, M. L., secretary to commissioner, sal. and exp.	1,322.00
Warner, Geo., inspector, sal. and exp.	2,590.32
Department of Engineering	64.36
Insurance fund	36.37
Printing Board	906.68
Superintendent of Public Property	4,929.99
Refunds	1,892.00
Total	<u>\$74,268.50</u>

REPORT OF HARRY KLUETER, CHEMIST

HON. GEO. J. WEIGLE,
Dairy and Food Commissioner.

Dear Sir:—I take pleasure in submitting a report of the food work done for the year ending June 30, 1919.

One thousand and fifty-two samples of foods, drugs, oils and turpen-
tines were analyzed. Four thousand eight hundred thirty sanitary
inspections were made by the food inspectors of meat markets, grocery
stores, bakeries, confectioneries, soda water factories and other places
where foods are manufactured, prepared, stored or offered for sale. The
number of samples analyzed and the number of sanitary inspections
made does not for this year justly report the amount of work done.
It must be remembered the great world's war was being fought and
that new conditions in the sale and handling of foods resulted. Regu-
lations were issued by the United States Food Administrator and we
took an active part in enforcing them.

Our inspectors were called upon to do considerable work for the
food administration. They spent a great amount of time, especially
in connection with the regulations affecting bakeries. No record has
been kept of that work in our office, the reports being forwarded to
the State Food Administrator. Inspectors were also called upon to
make other investigations for the food administration with a view
to enforcing other food regulations. We feel that this time was well
spent. We were going through a period when strict economy with
respect to the use of food was necessary and no one passing through
that period will ever forget the appeals made to the people of this
country by posters, printed matter and otherwise, to save food. In a
few instances we found by inspection and analysis that certain un-
scrupulous dealers in food were willing to take advantage of this situa-
tion by offering adulterated foods or by fraudulently advertising
certain food. Of particular interest in this respect, are the so-called
egg substitutes and potato flour.

An investigation concerning the hoarding of sugar by a certain
industry was made and as a result of that investigation about fifteen
cars of sugar were found in possession of that concern, when according
to the food administration regulations, they would be entitled to about
two cars of sugar. Getting this hoarded sugar out onto the market was
important work because it was work in the interest of people of this
state, whose sugar supply had been depleted because of hoarding.

A great deal of work was done in the laboratory on samples of foods submitted by the food administration and by the special agent of the Department of Justice of the United States where those officials had reason to believe certain forms of adulteration were being practiced, such as the sale of wheat flour as and for rye, or where they had reason to believe ground glass or some other injurious substance had been added to foods by parties not in sympathy with the part our country was taking in the war. It must also be remembered that during a considerable part of this period, one of our most active food inspectors was not with the department, having resigned to accept a position as federal food inspector. Another of the food inspectors was unable to work during part of this period owing to sickness and for that reason a comparison of the number of sanitary inspections made with previous years will not be favorable; but, as has been pointed out, this period was in so many respects different from any other working period, that it cannot be compared with the work done in former years.

The work of licensing bakeries, confectioneries, soda water factories and cold storage plants continued throughout the year and there can be no doubt that much good has resulted from inspections made at these places before licenses were granted. The conscientious enforcement of a law licensing establishments handling food such as cold storage plants, is of great value. Aside from having permanent records on file concerning many features of these places, we have inspections showing actual sanitary conditions. I also feel that licensing these places has stimulated the operators to put forth better efforts in improving the conditions of these places. The cold storage law properly enforced has the effect of discouraging speculation in certain foods.

Cold storage is an essential factor in the food supply of the country but it might also be a detriment to the people if uncontrolled and used for speculation. The law is so worded that if it is complied with there is little opportunity for a loss of food through storage for an indefinite period. No doubt hundreds of tons of food have been wasted in the past by storing it under unfavorable conditions and for too long a period.

The food work of the department has grown rapidly. We have been placed in direct touch with these various industries which are required to obtain a license. We are called upon to inspect them more frequently and we must know their conditions before we are in a position to say that this place or that place shall be licensed or shall not be licensed. Besides, the need for more inspectors, because of this additional work, there still remains much work to be done in connection with other laws with the enforcement of which we are charged. More work must be done on linseed oils, linseed oil compounds, turpentine and paint pigments during the coming years. We must get to the smaller villages where the badly adulterated linseed oils and turpentine have been driven because the dealers in those products feel that an inspector would not get to these villages and they are safe in offering their products for sale at these places. It is also a fact that many

farmers are buying linseed oils out of the state in barrel lots because of false and misleading circulars sent to them through the mail. While we perhaps cannot hope to take care of everyone who purchases goods from out of the state for private use, still I feel that the form of adulteration practiced on the farmer where he purchases barrel lots of linseed oil, is so gross that we are justified in putting forth our best efforts in protecting these people.

We need to do more work in connection with the canning industry. The laboratory was called upon to make an investigation of a number of cans of peas submitted by a cannery. The product was suspected of being spoiled because the ends of the cans would bulge if the cans were dropped or received a sudden shock or jar. The canner suspected that the can-capping machines in his plant were not working properly and that he was not getting the proper vacuum in his cans. He suspected that the cans were leaking and that he would suffer a large financial loss through spoilage. The investigation at the laboratory disclosed the fact that the cans were being properly sealed and hence there was no opportunity for spoilage because of leakage, but the trouble was due to the fact that the brine was not of the proper temperature when filled in the cans, thus permitting the trapping of considerable air and the prevention of a proper vacuum. No doubt we should stand ready to give assistance to food manufacturers along these lines, but we must also give more attention to the conditions under which foods are canned, namely the sanitary conditions of canneries.

Owing to the lateness of this report we are able to state that the last legislature passed a law licensing the canning factories, giving the dairy and food commissioner authority to make rules and regulations concerning the sanitary conditions of factories and the licensing of them. This I believe will bring us in much closer touch with the canning industries and no doubt we shall find conditions which must be corrected and we may hope for better canneries and consequently better canned foods.

The last legislature had before it a bill requiring a license before a person, firm or corporation could engage in the purchase of eggs. This bill also authorized the dairy and food commission to make rules and regulations concerning the handling of eggs. It is to be regretted that the legislature did not see its way clear to enact this bill into law. If Wisconsin, as a state, is to become an important factor in the egg industry, no doubt this will be hastened by suitable laws controlling the traffic in eggs. We need more power than we now have under the general food law, in handling the egg situation. We need the power of confiscation not only with respect to eggs, but with respect to other articles of food which have become unfit for consumption through spoilage. We are able under the general food law to prosecute a party for the sale of spoiled eggs, meat, cheese or any other food unfit for human consumption, but after we have prosecuted in many instances it is necessary to spend further time to see what disposition has been made of the food.

If we had the power to seize and confiscate, together with authority to denaturize unfit food, we could prevent any further traffic in that product. It may seem that by simply prosecuting further traffic will be prohibited. This may be true with small quantities but where an entire carload of spoiled food or partially spoiled food is in question, I doubt very much whether this entire lot would be properly disposed of either by destruction or by use for animal food. Therefore, it seems that we will be warranted in making further efforts in attempting a legislation relating to handling of eggs, and a legislation authorizing seizure and denaturizing of certain spoiled or otherwise unfit foods.

I believe that further legislation is called for in connection with the Babcock test. This test is used to determine the value of dairy products and these products are bought and sold on a basis of that determination. Therefore, it seems that it is important that those using the test be qualified in some way. The test is very simple and very accurate, but experience and knowledge are necessary factors in properly making a Babcock test.

BEVERAGES

Thirty-seven samples of beverages were analyzed. Twenty-five of these samples were soda water. These samples were tested for the presence of chemical preservatives and saccharin.

Three samples of grape nectar, wild cherry and orange, all manufactured by the Allouez Mineral Spring Company of Green Bay were found to contain benzoate of soda. None of the samples contained saccharin. Owing to the scarcity of sugar it was thought that saccharin might be substituted in part for sugar but this did not prove to be the case. While there were requests asking that saccharin might be used as a substitute for sugar, such requests could not be granted inasmuch as we have a law specifically forbidding the use of saccharine in foods. I think it was assumed by those asking for permission to use saccharin, that soda water is used largely because it is sweet. This belief, I think, is wholly unfounded. The system may crave sweets but it expects to get sweets in the form of sugar and the sugar as we know, is one of our chief foods. The value of soda water in relieving fatigue is not dependent upon satisfying the sense of taste with something sweet like saccharin, but rather on supplying a food which is easily and readily assimilated and converted into energy. Soda water containing sugar accomplishes that purpose. Saccharin does not accomplish it and saccharin has no food value and passes through the system unchanged.

The future of the soda water industry depends largely upon the quality of the product which it sells and this product is assuming a place of importance at the present time. It is gratifying to learn from a number of tests that the manufacturers have refrained from the use of saccharin. It is also encouraging to learn that true fruit flavors are supplanting the use of artificial flavors as rapidly as the manufac-

turers are able to supply the demand for the true fruit extract or flavor.

One of the big problems remaining in food control work is a standardization of this class of products; soda water, ginger-ale, root beer, sarsaparilla and other similar beverages. By a standardization I do not mean that any definite percentage of sugar should be required. In this respect I believe only a minimum standard for the sugar content should be fixed, allowing those manufacturers who wish to put out a sweeter product to do so, but I believe that the low percentage of sugar found in a number of the samples tested for sugar, indicates the need for a minimum requirement. In one sample bought in Milwaukee we found only 22/100 of 1% of sucrose. We expected to find saccharin in this sample but none was found. The sample contained an insufficient amount of flavoring material to give it a characteristic flavor, although it was supposed to be a cherry soda and the small amount of sugar used was hardly perceptible to the taste. In fact, this sample was little more than artificially colored water, charged with carbon dioxide and of course the sale of such a product is a detriment to the rest of the industry and is unfair competition. The highest percentage of sugar found was 8.5%. This was in a sample of cream soda, a product which is usually high in sugar.

Two samples of beer were analyzed for the District Attorney of Sauk County. Both the samples were found to contain less than 2 $\frac{3}{4}$ % of alcohol by weight.

Two samples of wine were analyzed: one suspected of containing hydrocyanic acid, but which was proven to be free from the same; and the other wine submitted by Father Angelo Simeoni to be used for sacramental purposes, upon analysis was shown to be free from adulteration.

Three samples of near beer were analyzed, all of which were tested for the percentage of alcohol. One of the samples was submitted by the State Food Administrator and from the alcoholic content, all three of these beverages were correctly labeled as "Near Beer."

One sample of grape juice was analyzed and found to contain a considerable quantity of sulphurous acid. In fact, the flavor of the product was practically ruined by the addition of this chemical preservative. At least, an after taste suggesting the old sulphur match and an otherwise wholesome and palatable product had been made unpalatable as well as unhealthful.

Four samples of sweet cider were analyzed, all of which were found to contain benzoate of soda as a chemical preservative and one was found to be preserved with sulphite, undoubtedly calcium acid sulphite. This chemical was formerly used very extensively as a preservative in cider. Both benzoate of soda and sulphites are classed as prohibited preservatives by a special chemical preservative law of this state and of course the products in which they are found are not legally salable.

One sample of cider was analyzed which was not sold as sweet cider but was simply represented to be cider. An analysis of this product showed it to be an imitation of cider, not a genuine apple product.

Besides being artificially flavored, this sample was sweetened with saccharin and preserved with benzoate of soda. Its sale was in violation of law in that it was an imitation of a genuine product and in that it contained a prohibited, chemical preservative and was sweetened with saccharin.

BUTTER

Fifty-three samples of butter were tested, two of which were found to be standard, twenty-nine of which were found to be below the legal standard for butter or misbranded and twenty-two were submitted samples suspected of containing foreign fat. The low percentage of butters found to be standard, two out of thirty-one analyzed, does not at all indicate the condition of butter found on the Wisconsin market. Only those samples suspected of being adulterated were purchased by inspectors and submitted and from a study of the table of analysis it seems the inspectors knew where to get adulterated products. One sample of butter contained as low as 71.39% of fat and contained 23.98%, practically 24% of water.

Butter, of the composition as shown by the analysis, is not a credit to Wisconsin and it seems that for the coming year we should do more work on butter. No one can justify the sale of butter containing as low as 71% or 79% of butter fat with a standard of 82½%. I do not believe that most of this adulterated butter is due to accident, but rather was manufactured with a view of getting in as much moisture and as little fat as possible. The analyses indicate to me deliberate attempts on the part of manufacturers to adulterate butter.

Of the twenty-two submitted samples of butter, two were found to be below the legal standard in fat, two samples were found to be old, stale, partially rancid butter and one sample submitted by Wm. J. Schull, Campbellsport, was found to be standard. Most of these samples were suspected of containing foreign fat but in no case did we find that the butter had been adulterated by the addition of oleomargarine or any foreign fat.

CEREAL PRODUCTS

Twenty-nine samples of cereals and cereal products were analyzed; one a wheat flour submitted from Portage as suspected of containing ground glass, but analysis showed the product to be free from that substance; two samples were submitted by Magnus Swenson, State Food Administrator, to determine in one case whether the flour was really rye flour, what it was sold for, and in the other case whether the flour was barley flour or not. Both of the samples were suspected of containing large percentages of wheat but no evidence of wheat flour was found.

Seven samples of buckwheat flour were submitted and analysis showed them to be free from adulteration. In some cases the trouble

with the product submitted was that it was not fresh buckwheat but buckwheat that had been held over from the previous season.

One sample submitted as wheat flour by Mr. Thompson of Medford upon analysis was shown to be either entirely rye or a mixture with a very small percentage of wheat and a large percentage of rye flour.

Owing to food administration regulations concerning flour, many samples of genuine wheat flour were looked upon with suspicion and submitted and found to be free from adulteration. This is undoubtedly due to the fact that these samples were not as high a grade of patent flour as people were accustomed to using.

CHEESE

One hundred and sixty-nine samples of cheese were analyzed. Sixty-three of this number were passed as standard, while seventy-nine were classed as not standard. Seventy-three of these seventy-nine samples were found to contain more than .40% of moisture and four were found to be low in fat. The ratio of fat to the moisture-free solids in these samples shows either that the samples were made from skim milk or that a foreign substance free from fat had been added. In one case we have information showing that albumen was added, while in the other cases I am inclined to believe the cheese was made from skim milk.

A demand for cheese and an unusually high price seems to have encouraged adulteration. We have, in this state, a very liberal moisture standard for American and Cheddar cheese and if the cheese makers continue to add excessive moisture, the future of this industry is threatened. It is a well-known fact that high moisture cheese is not cheese of good keeping quality and thus serious losses may result.

Of the twenty-seven submitted samples analyzed most of them were samples of Brick cheese submitted by Senator H. Bilgren of Iron Ridge, Wisconsin, for the purpose of collecting data upon which to base a moisture standard for Brick cheese. The legislature has enacted into law a moisture standard for Brick cheese, placing the maximum percentage of moisture permissible in such cheese, at 42%. One of the submitted samples were found to contain more than 43% of moisture and this sample of cheese was condemned by Senator Bilgren as being of exceedingly inferior quality due to excessive moisture.

Four samples of American cheese were tested for moisture and fat and the ratio of fat to total solids in these four samples showed the use of skim milk in the manufacture of this cheese. One sample submitted from Monroe was suspected of containing ptomaine but an analysis showed that that substance was not present.

CREAM

Seventy-seven samples of cream have been analyzed. Twenty-seven samples were from city milk supplies and eight of the twenty-seven

samples were standard, leaving nineteen below the legal standard fixed for cream, 18% of butter fat. In connection with these creams from city milk supplies it is to be noted that the large percentage of samples below standard is not at all indicative of the quality of cream offered for sale by city milk dealers. Our dairy inspectors only send in those samples which they have tested and found to be suspicious. During the course of the year hundreds of samples of cream are tested and found to be up to standard or above.

Twenty-one samples of cream were analyzed in the laboratory to check up the tests given by factory men who were buying this cream and paying for the same by the Babcock test. In practically all of these cases we found the variation between the factory-men's test and our test in the laboratory too small to warrant prosecution. In a few cases we felt that the tests made by factory men should have been nearer the tests received at the laboratory and in such cases the matter was taken up by correspondence.

Twenty-nine samples of cream were submitted by various parties asking for fat determinations on the same and in these cases we have reason to believe that they were dissatisfied with the test given them by some factory men.

Taking the twenty-one samples which we tested and the twenty-nine submitted samples, making a total of fifty samples in the year, tested to check up factory Babcock testing, it seems quite evident that there is considerable dissatisfaction with the manner in which cream is tested. This is a very important factor, especially when butter fat is selling at about \$.60 a pound. A difference of 2% in the test means a difference of from \$1.00 to \$1.20 per hundred on cream. Inaccurate testing of cream works in two ways. If underreading is practiced, a big gain to the factory is made possible and of course a loss to the producer's cream. On the other hand, overreading may be practiced by some factory men for the purpose of getting new patrons. This is unfair competition. Undoubtedly patrons obtained in that way do not receive a higher cream test for any length of time but simply long enough to get their business away from the competitor. It may well be that underreading may be practiced on these same patrons at a later date.

Considering these fifty samples as showing cause for complaint on cream tests, it indicates very strongly that further efforts should be made along the lines of getting more accurate work done by factory men. Perhaps the best method of accomplishing this end would be a law requiring that operators of the Babcock test, testing cream for the purpose of determining its value, be licensed. The last legislature had for its consideration a bill enacting such a law but did not see fit to pass it. I do not believe we should be discouraged by this but that we should renew our efforts. In this connection attention has been called to the difficulty in sampling cream. It is a fact that hundreds of cans of cream are being sampled daily, the fat content of which is from 50-60%. Considerable difficulty may be experienced in

sampling this kind of cream. Much of it is whey cream and therefore low in casein and for that reason may be more difficult to sample.

While there has been considerable work done on the sampling of cream and bulletins have been issued, this work was done on cream and not whey cream. Similar tests should be carried on in connection with whey cream so that we may know whether or not it can be as accurately sampled. Experimental work of this kind naturally belongs to the College of Agriculture but that department may be too busy to carry on such work and for that reason the work might well be undertaken by this department. The matter is of vital importance. Losses from inaccurate testing may run into thousands of dollars a year and I strongly urge that we be permitted to take up this line of work.

EGG SUBSTITUTES

Ninety-four samples of so-called egg substitutes were analyzed in the laboratory. This was one of the most interesting, instructive pieces of work carried on in the laboratory and resulted in several prosecutions for the sale of these so-called substitutes. Most of these products in themselves are fraudulent and in many cases the advertising matter used in selling them was also fraudulent. At first some of the products appeared under names in which the word "egg" was used. Undoubtedly the purpose of using this word was to suggest the similarity of these so-called substitutes to the genuine product, egg. Bulletins issued by the dairy and food commissioner held that if the syllable "eg" is used in the name of the product it must contain 50% or more of desicated egg or egg powder. This caused many of the manufacturers to modify the name of their product. Good illustrations of this are to be found in the product first appearing as Sa-Van-Eg, which later was put out under the name Sa-Van. The product first sold as Eggine was finally changed to Marvel Powder.

The advertisements in newspapers for these products were very interesting and extravagant in their statements. It is to be remembered that this class of products appeared during the scarcity of food resulting from the war and for that reason it was possible to appeal to people from the standpoint of patriotism. Advertisements appeared informing people that it was their patriotic duty to stop wasting eggs and use these so-called egg substitutes. You can be sure nothing appeared in these advertisements advising people that they were paying about a dollar a pound for corn starch when they purchased egg substitutes. Some of these advertisements also stated, "One Package Goes As Far As Three Dozen Eggs In Baking And Cooking". The weight of the product of this particular brand was three ounces for twenty-five cents. Directions on many of the packages indicated that the contents of the package might be used in place of three dozen eggs in baking and cooking. If the product were of the same composition as egg powder or desicated egg, these ad-

vertisements and statements in directions for the use of these products would still be false since three dozen eggs contain eighteen ounces of egg solids. Practically all of the advertisements and the directions for the use inferred that the contents of the package were equivalent to a certain number of eggs.

The analysis of these so-called egg substitutes have shown that there are two classes: those which consist largely of starch, from 60 to 85% with small percentages of protein from 2 or 3% to 6%, with a small percentage of sugar; and another class of the same approximate composition except that the percentage of starch is slightly less and that there has been added to these leavening agents sodium bicarbonate and an acid reacting constituent in practically all cases found to be calcium acid phosphate.

Eggs contain three valuable food elements, namely protein, fat and ash constituents. An egg contains about half an ounce of these food elements. Analysis has shown these so-called egg substitutes to be practically free from fat except in cases where egg powder is one of the ingredients small percentages of protein are present with large percentages of starch, so that there is a great difference in the kind of food, to say nothing of the physical properties of egg albumen so necessary in certain kinds of baking and cooking. The water-free substance in eggs is composed of approximately 45% of protein and 40% of fat so that every egg used in baking and cooking furnishes as food, protein and fat. These egg substitutes being almost wholly devoid of fat and containing only small percentages of protein therefore reduce the food value of the foods in which they are used. In fact, in the one class, products containing no leavening, nothing is added to a cake that is not already contained in most cakes, while in the use of eggs there is added with each egg a quarter of an ounce of protein and almost a quarter of an ounce of fat. Any claim or statement to the effect that three and three-fourths ounces or four ounces of these mixtures are in any way equivalent to three dozen eggs, or as some of the statements claimed from forty to fifty-five eggs, are therefore false and fraudulent.

Eggs are especially valuable in cooking for the following reasons: they add food value, flavor and in many cases use is made of the property which egg albumen has, of coagulating with heat. Because of this property egg albumen stirred into a cake or whipped into a cake, immeshes innumerable bubbles of air and when heated the albumen coagulates forming a network of cells which produce a light, tender product. Cakes baked with eggs are light, fluffy and tender and have a superior flavor to cakes that are baked without eggs or with the use of egg substitutes. Eggs in cake produce a yellow color, indicating richness.

Nearly all egg substitutes examined have been found to contain a yellow, coal tar dye which was added for the purpose of imitating the yellow color obtained when eggs are mixed or beaten. This is another element of fraud. The color was intended to impart to the users of the product the idea of richness and to impart to the fin-

ished product a yellow color such as would be produced by eggs. Again indicating richness.

Several prosecutions in connection with the sale of these products served to drive many of them from the market, caused a change of name in some and caused the directions to be modified so that the idea of an egg equivalent is dropped. If a time ever returns when eggs can be bought for a reasonable price, twenty-five or thirty cents a dozen, we can rest assured that this class of products will disappear from the market because of a lack of demand for the same.

The value and properties of eggs in cooking and baking are too thoroughly understood and too well appreciated to give away to the use of egg substitutes, and thus far no food has been produced or placed on the market which is in fact a substitute for eggs.

FLAVORS AND FLAVORING EXTRACTS

Twelve samples were analyzed, most of which were vanilla extracts and lemon extracts. There are still some merchants who carelessly or otherwise sell compounds composed of vanillin, coumarin and artificially colored as and for vanilla extract. These compounds are very much cheaper than genuine vanilla extract and are inferior in quality. This practice is made possible largely through the use of the artificial color which makes the product appear like vanilla extract. If not artificially colored it would be practically colorless and would not be taken for vanilla extract by the purchaser or consumer.

It is true, that many of these compounds are properly labeled to show that they are artificially colored but in many instances the purchaser does not have an opportunity to read this label before the goods are taken home and unwrapped. The customer calls for a bottle of vanilla extract. A bottle of the compound is taken off the shelf, wrapped up and taken home. It may be that the housewife delivers the article to the servant who does not know whether vanilla was called for or whether this cheap imitation compound was purchased in its place. If artificial color is not used in this class of products I believe the consumers of the state would receive a great deal of protection. First of all, the merchant handling the product would question the quality of the goods if they did not look like vanilla and the consumer would immediately question the product because of its color. In this way vanilla extract would be afforded protection just as butter is protected by forbidding the sale of oleomargarine which is in imitation of the color of yellow butter.

It is to be regretted that the Federal Food and Drugs Act is not so worded as to prohibit the interstate shipment of these deceitful imitations. In this connection it is to be remembered, however, that the Federal Food and Drugs Act is operative mainly between manufacturer and jobber on the one hand and the retail dealer on the other hand. In other words, it is a law designed to regulate the sale and transportation of interstate commerce shipments which, of course, are from dealer to

dealer. It is proper to assume that dealers are better informed and in fact should assume more responsibility in handling these products than should the ultimate consumer. We have a right to expect dealers in food products, whether they be retailers or wholesalers, will inform themselves as to what articles of food are lawful and what are not lawful.

FOODS SUSPECTED OF CONTAINING GLASS

Six samples of various kinds of foods suspected of containing ground glass were submitted and tested. One of the samples, submitted by the United States Department of Justice consisted of a piece of cake, frosted and on the frosting there was visible to the unaided eye one small piece of glass. No glass whatever was found in the cake itself where it would have been placed had it been put there with a malicious intent. One sample of flour was found to contain small pieces of stone which undoubtedly found their way in through the use of improperly cleaned wheat from which the flour was ground. The flour may have been milled in a small country mill where the facilities for properly cleaning wheat before it is ground are not as good as they might be.

A sample of peanut butter was found to contain considerable sand which undoubtedly accounted for the grit present in the food, causing it to be suspected of containing ground glass.

All of this work resulted from conditions prevailing because of the war. Many people suspected that German sympathizers had adopted this method of punishment for those whose sympathies were not with the enemy.

ICE CREAM

Nine samples of ice cream have been analyzed, six of which were standard and three of which were found to be below standard in fat.

The period for this report ends just as we had gotten well started on a general survey of the ice cream manufactured and sold in this state. The next report will contain some very interesting data on ice creams sold in this state.

LARD

Six samples of lard were analyzed. Two were found to be standard and four were found to be adulterated with foreign fat, either beef fat or mutton fat. These samples were from butchers who render their own product and it seems to have been a practice of a number of butchers to add small percentages of beef fat, from 5 to 10 or 15% to their lard for the purpose of hardening the same. Such a practice makes the lard an adulterated article of food, not necessarily injurious to health, but it cheapens the product and gives it the appearance of being a good quality of leaf lard.

It seems that a campaign on this particular article of food might be well carried on for the coming year. A large number of samples can be analyzed and publicity given, and if necessary prosecutions brought. Such a campaign, I think, will put an end to this form of adulteration.

LINSEED OIL

Twenty-one samples of linseed oil were analyzed, sixteen of which were found to be standard and five not standard.

During the past year we have not given the subject of linseed oil as much time and attention as it should have received. The price of linseed oil has been very high and no doubt there has been considerable adulteration practiced. By our work in former years on this product I believe we have driven much adulterated linseed oil from the market of this state.

The adulterated samples which we analyzed show the usual form of adulteration, namely mineral oil. In three samples the product consisted of at least one-third of mineral oil. In another case the product consisted of 22% of mineral oil. This adulterant is especially harmful where the adulterated linseed oil is used on new woodwork. Such woodwork coated for the first time with a paint containing large quantities of mineral oil may be ruined. It may even become impossible to successfully apply future coats of paint and have the same adhere to the building or to the woodwork. Thus permanent injury may be done to new work, to say nothing of the unfair competition of the product with linseed oil and the excessive profit obtained by this method of adulteration.

MILK

Three hundred and thirty-nine samples of milk have been analyzed. Nineteen samples delivered to creameries, cheese factories and condensaries were found to be standard and seventy-six delivered to the same class of factories were found to be below standard.

We find the usual form of adulteration to be watering and skimming. There seems to have been considerable temptation owing to the high price of milk and more effort is necessary on our part to stamp out this evil. The importance of the creamery, cheese factory, condensary or any other milk products factory to the State, is so great that additional effort is warranted. The people engaged in this industry are beginning to see the importance of control work and it is to be hoped that before long this fact will dawn upon the legislature and the necessary funds to do this work as it should be done, be provided.

The production of milk on the farm, delivery of it to the various factories, the manufacture of milk into the various food products, all require close inspection owing to the nature of milk and its products. Dairy products are one of the chief sources of food supply for the nation and have grown to be an important industry from the standpoint of income to the people of the State.

Forty-four samples of milk collected from city milk supplies were analyzed, seventeen of which were found to be standard and twenty-seven below standard. The usual form of adulteration, skimming and watering was also practiced. The city milk supply of a city is of importance inasmuch as the many infants and especially the young of the city depend to a large extent upon it for their food. No doubt this fact will become more and more apparent to city governments and in the future we may hope that not only the larger cities of the state, but many of the smaller cities will undertake city milk inspection. While city milk inspection is now carried on in many of our larger cities I think improvement of that inspection service is possible and one of our activities might well be along these lines. City milk inspection should be carried on in such a manner that the dealer does not know when his milk may be picked up. I do not favor the practice of many city milk inspectors picking up samples once a month or on a given date or even in the first week or last week of the month. They should be picked up at such times when the milk dealers have no reason to suspect inspection.

Publicity of the results obtained by city milk inspectors, as well as by our own inspectors, would also be of great value. By this means citizens may advise themselves of the kind of milk they are buying or that can be purchased. Publicity would also tend to improve the quality of city milk, for naturally each dealer would want to head the list.

MISCELLANEOUS DAIRY PRODUCTS

A number of samples of evaporated milk were submitted and analyzed and all of them found to be up to the legal standard for that product.

Two samples of condensed milk were analyzed for the State Food Administrator to determine the percentage of sugar added to this product. The analysis showed the product to contain 41.17% of sugar in one sample and 42.43% of sugar in the other sample. This work was done during the sugar shortage of 1918, brought about by the war and I think indicated where large quantities of sugar went to and in many instances may have enabled dealers manufacturing under sugar restrictions to obtain additional sugar. This is only one of the many instances in which we were called upon by the State Food Administrator to assist him in enforcing food regulations.

OLEOMARGARINE

Twenty samples of oleomargarine were received at the laboratory and tested. In a number of samples the analysis was made for the purpose of determining the percentage of fat, moisture, salt and curd. The table of analysis shows that a large majority of samples of oleomargarine contain 82% or more of fat, while in only one instance did the fat content run below 80% and in that product it was found

to be as low as 70.8%. In several of the samples the fat content ran as high as 84%.

Five samples of vegetable oil oleomargarine were found to be preserved with benzoate of soda. The sale of this product is of course in violation of the law. Five samples were held to be in semblance of yellow butter and their sale therefore in violation of our food laws.

Considerable work was necessary to enforce the law with respect to the color of oleomargarine. During the past year this undoubtedly resulted from the high price of foods. Prosecution was started in Madison for the sale of oleomargarine held to be in semblance of yellow butter and this prosecution was defended by Swift and Company who were the manufacturers of the product. Practically an entire week was necessary to present the evidence in court in connection with this prosecution, the defendant being found guilty. The case was immediately appealed to the Supreme Court of the state, where it is now pending.

I feel that during the coming year considerable time and attention should be given to the manner in which oleomargarine is served at restaurants, boarding houses and hotels. No doubt butter will be as high if not higher during the coming winter and many restaurant and hotel keepers will be tempted to serve oleomargarine without giving notice to the patron. No doubt we will be able to find cases where the product is artificially colored, it being a common practice of dealers in oleomargarine to furnish small capsules containing the necessary amount of artificial color to accomplish this.

POTATO FLOUR

Forty-five samples of potato flour were analyzed in the laboratory. Thirty-six of these samples were bought and submitted by inspectors. The particular reason for taking up the question of potato flour at this particular time, was because of the fact that it was recognized as one of the best substitutes for wheat flour. We all know that in order to purchase wheat flour, a certain quantity of wheat flour substitute had to be purchased. This was a ruling of the United States Food Administrator. There were many other substitutes besides potato flour but for a time the demand for potato flour and its scarcity, caused a decided advance in price so that it became profitable to adulterate potato flour. This was done in two ways; by selling potato starch as and for potato flour or by mixing with potato starch varying quantities of corn starch. The latter form of adulteration was the most common and the composition of many of the samples submitted were found to contain as high as 75% of corn starch. The remainder of the product usually being potato starch.

Aside from the fact of being fraudulent as far as price is concerned, if the practice were permitted to continue and considerable quantities of adulterated potato flour were consumed, the health of the people of the state would be affected. Starches, such as corn starch and

potato starch contain little or no protein. They contain only a trace of fat or oil and are deficient in ash constituents. While the various kinds of flour are composed largely of starch, they contain also an appreciable amount of protein, fat and ash constituents and as we all know protein, fat and ash constituents are valuable food ingredients.

Several prosecutions resulted from this form of adulteration and considerable work was done by our inspectors, collecting official samples for the federal government, in connection with the federal food and drugs act. The federal government, I understand, has called a hearing on this matter and the parties guilty of this form of adulteration were let off with a warning and upon a promise that the goods on the market would be properly labeled and this form of adulteration discontinued.

I am inclined to feel that the regular course of prosecution should have been followed.

OLIVE OIL

Ten samples of olive oil were analyzed. Four samples were the product of the La Piana Drug Company of Milwaukee and these samples were found to contain little or no olive oil. They consisted of cotton seed oil.

An inspection in Milwaukee at one of the wholesale houses where oils are handled was made by our inspector, Mr. Kremer, and it was learned that the La Piana Drug Company were purchasing large quantities of cotton seed oil and occasionally a barrel or two of olive oil. A further investigation by our inspectors resulted in samples being submitted. The analyses showed the same results, namely that the product was cotton seed oil. In one case we found the product to be misbranded because the net contents of the package were incorrectly stated.

It appears there is less adulteration being carried on in connection with olive oil for I believe that the work of food departments throughout the country has helped educate the consuming public to some extent on the question of olive oil. Undoubtedly dealers in other edible oils such as cotton seed oil, corn oil and peanut oil have also realized the benefit to be derived from placing their product on the market properly labeled and sold for what it is. Olive oil is of a special value because of its flavor.

Our work on olive oil, I think, need be continued especially with respect to new brands as they appear on the market.

SACCHARINE PRODUCTS

Fifteen samples of various kinds of saccharine products were analyzed, nine of which were labeled syrups and two of which were sold as cane syrup. Practically all of the maple syrups were sub-

mitted samples and most of these samples were adulterated in that the sap from which the syrup was prepared, was not boiled down enough or concentrated to the proper degree.

One sample of the maple syrup which was purchased by an inspector was found to be unfit for use, owing to the fact that it contained a large amount of sand and woody material which resembled the bark of the maple tree. This syrup was simply a product that had not been properly manufactured.

Two samples of cane syrups were submitted by our inspectors, both of which were found to be below the legal standard in that they contained more than 35% of water, also in that one-third of the total sugars present was found to be invert sugar. This form of adulteration I feel was due to the scarcity of cane sugar and due to restrictions placed on the quantity of cane sugar which might be used by certain industries. It was an attempt to put on the market a syrup which could be used in place of cane sugar but which in fact was manufactured by the use of cane sugar. The invert sugar present in this syrup was obtained by inverting cane sugar, so that no saving in cane sugar could be accomplished by the use of this product. It was a clear attempt on the part of this manufacturer to evade the regulations issued by the food administrator concerning the sale of sugar.

One sample of bottler's syrup was found to contain benzoate of soda.

TURPENTINE

Six samples of turpentine were analyzed, four of which were found to be standard and two badly adulterated. The adulterated samples both contained about 72% of a mineral oil product of the nature of kerosene. These samples were not official samples, but were submitted samples and for that reason no prosecutions were had in connection with them.

Further inspection and analysis in connection with the sale of turpentine I feel is called for. The small number of samples collected during the past year I think illustrates the fact that we have not been able to give this subject its proper attention.

VINEGAR

Thirty-three samples of vinegar were analyzed. These samples were in practically all cases submitted by the party who had manufactured cider and permitted it to ferment to cider vinegar. The purpose of submitting the samples was to determine whether or not fermentation had gone far enough to produce four grams of acetic acid per 100 cubic centimeters, which is the legal requirement for acetic acid in cider vinegar.

In doing work of this kind it was understood in all cases that we assume no responsibility for the purity of the product other than the acetic acid content which we reported. These people manufacturing the product were in a position to know whether it was the product of pure apple juice or not and were therefore in a position to know whether the sample was genuine and legal cider vinegar or not as soon as they knew the acid content.

Determining the acid of cider vinegar takes but a few minutes and I feel that encouragement given to those manufacturing cider vinegar by making this test, is worth while.

SUMMARY ANALYSES

1052 Samples

	No. of Samples	
BEVERAGES		37
CEREALS		29
DAIRY PRODUCTS		661
Butter		53
Standard	2	
Not standard or misbranded.....	29	
Submitted samples	22	
Cheese		169
Standard	5	
Tested for moisture and found to contain 40% or less.....	58	
Tested for moisture and found to contain more than 40%.....	73	
Not standard, tested for moisture and fat.....	6	
Submitted samples	27	
Cream		77
From city supply, standard.....	8	
From city supply, not standard.....	19	
Miscellaneous	21	
Submitted samples	29	
Ice Cream		9
Standard	6	
Not standard	3	
Milk		339
Delivered to creamery, cheese factory or condensery, standard	19	
Delivered to creamery, cheese factory or condensery, not standard	76	
Herd samples	65	
City milk, standard.....	17	
City milk, not standard.....	27	
Submitted samples	135	
Miscellaneous		14
DRIED FRUITS		7
EGG SUBSTITUTES		94
FLAVORS AND FLAVORING EXTRACTS.....		12
FOODS SUSPECTED OF CONTAINING GLASS.....		6
LARD		4
LINSEED OIL		21
Standard	16	
Not standard	5	
MISCELLANEOUS PRODUCTS		52
OLEOMARGARINE		20
OLIVE OIL		10
POTATO FLOUR		45
Found to be free from adulteration.....	7	
Found to be mixtures or potato starch.....	29	
Submitted samples	9	

	No. of Samples	
SACCHARINE PRODUCTS		15
TURPENTINE		6
Standard	4	
Not standard	2	
VINEGAR		33

BEVERAGES

Date	Kind	Bought of or Submitted by	Manufacturer or Jobber	Remarks
1918				
July 6	Beer	*District Atty. Sauk Co., Baraboo..	.....	2.29% alcohol by weight.
July 6	Beer	*District Atty. Sauk Co., Baraboo..	.....	2.34% alcohol by weight.
July 6	Red soda	John Graf Co., Milwaukee.....	John Graf Co., Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 2.18%.
July 6	Cream soda	John Graf Co., Milwaukee.....	John Graf Co., Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 1.13%.
July 6	White soda.....	John Graf Co., Milwaukee.....	John Graf Co., Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 1.05%.
July 7	White soda	Picnic party, Milwaukee.....	Lincoln Soda Water Co., Milwaukee.	Tested for saccharin and chemical preservatives, none found. Sucrose 5.06%.
July 7	Red soda	Picnic party, Milwaukee.....	Lincoln Soda Water Co., Milwaukee.	Tested for saccharin and chemical preservatives, none found. Sucrose 4.85%.
July 8	White soda	Street Carnival Stand, Milwaukee..	A. R. Nitz, Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 4.59%.
July 8	White soda	Union Bottling Works, Milwaukee..	Union Bottling Works, Milwaukee.	Tested for saccharin and chemical preservatives, none found. Sucrose 7.39%.
July 8	Cherry soda	Union Bottling Works, Milwaukee..	Union Bottling Works, Milwaukee.	Tested for saccharin and chemical preservatives, none found. Sucrose 3.63%.
July 8	White soda	Koester & Liebscher, Milwaukee....	E. L. Husting Co., Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 4.16%.
July 8	Cream soda	Koester & Liebscher, Milwaukee....	E. L. Husting Co., Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 8.05%.
July 8	Cherry soda	H. Grafman, Milwaukee.....	B. Herman, Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 0.22%.
July 8	Cream soda	Gust Karras, Milwaukee.....	T. Stahl, Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 4.11%.
July 8	White soda	Royal Bottling Co., Milwaukee....	Royal Bottling Co., Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 6.75%.
July 8	Cream soda	Royal Bottling Co., Milwaukee....	Royal Bottling Co., Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 4.19%.
July 9	Cream soda	Picnic party, Milwaukee.....	John Graf Co., Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 2.19%.
July 9	Red soda	Picnic party, Milwaukee.....	John Graf Co., Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 2.00%.
July 9	White soda	Picnic party, Milwaukee.....	John Graf Co., Milwaukee.....	Tested for saccharin and chemical preservatives, none found. Sucrose 1.90%.

July 31	Grape neectar	F. L. Buckley, Green Bay.....	Allouez Mineral Spring Co., Green Bay.	Benzoic acid or a salt thereof present.
July 31	Wild cherry	Al. Janssen, Green Bay.....	Allouez Mineral Spring Co., Green Bay.	Benzoic acid or a salt thereof present.
July 31	Orange	J. Seroogy, Green Bay.....	Allouez Mineral Spring Co., Green Bay.	Benzoic acid or a salt thereof present.
Aug. 13	Near beer	*Food Administration, Madison.....		Alcohol by volume—0.52%. Iodoform test—positive. No adulteration found.
Aug. 15	Wine	*Rev. Angelo Simeoni, Madison.....		
Aug. 15	Cider	Rhineland Bottling Works, Rhineland.	National Fruit Produce Co., Memphis, Tenn.	Not standard—not a cider. Preserved with benzoic acid. Contains saccharin.
Aug. 21	Pop	Aug. Gluch, Neillsville.....	Aug. Gluch, Neillsville.....	Tested for saccharin and chemical preservatives, none found.
Aug. 21	Pop	Aug. Gluch, Neillsville.....	Aug. Gluch, Neillsville.....	Tested for saccharin and chemical preservatives, none found.
Aug. 29	Home made wild cherry wine.	*W. A. Bray, Madison.....		Found to contain a trace of hydrocyanic acid.
Dec. 12	Apple cider	John Swedborg, Prentice.....	Bassett & Bassett, St. Paul, Minn.	Not standard. Contains benzoic acid or a salt thereof.
Dec. 19	Cider—raspberry	Carl Fleustad, Ashland.....	Drewry & Sons, St. Paul, Minn....	Not standard. An artificial preparation not made from raspberry juice. Artificially colored.
Dec. 23	Apple cider	Johnson Bros., Eau Claire.....	John C. Morgan Co., Traverse City, Mich.	Not standard. Preserved with sulphurous acid or a salt thereof.
Dec. 24	Apple cider	J. F. Holterman, Superior.....	The Fruit Juice Co., Superior.....	Not standard. Contains benzoic acid.
1919				
Mar. 25	Pop.....	John Bast, Neillsville.....	Gluch & Gay, Neillsville.....	Contains heavy sediment, found to be due to breaking down of the coal tar dye used.
May 5	Grape juice.....	Mrs. B. B. Banks, Chetek.....	Boss Island Vinyards Co., Sandusky, Ohio.	Sulphur dioxide present in large quantities.
May 7	Apple cider	B. Droocks, Rice Lake.....	Frisco Fruit Co., St. Louis, Mo...	Not standard. Contains benzoic acid.
June 16	Near beer	*L. W. White, Keshena.....	Hagemeister Brew. Co., Green Bay	Alcohol by volume 0.07%.
June 16	Near beer	*L. W. White, Keshena.....	Miller Brewing Co., Milwaukee....	Alcohol by volume 0.32%.

* Submitted by.

CEREALS

Date	Kind	Submitted by	Remarks
1918			
July 16	Wheat flour	Knauf & Tesch Co., Kaukauna....	No adulteration found.
July 31	Corn flour	Mrs. Will Curran, Taylor.....	No adulteration found.
Aug. 2	Rye flour	Magnus Swenson, Madison.....	No adulteration found.
Aug. 17	Barley flour	Food Administration, Madison.....	No adulteration found.
Sept. 11	Flour	Dr. W. G. Tuchund, Portage.....	Suspected of containing glass. None found.
Sept. 19	Rice flour	Mr. Buerger, Madison.....	No adulteration found.
Sept. 30	Corn starch	Ed. Dommsier, Shell Lake.....	A mixture of corn starch, dextrin and a sugar dextrose.
Sept. 30	Rye flour	Chris. Ruh, Appleton.....	No adulteration found.
Dec. 4	Wheat flour	Jens M. Thomsen, Medford.....	Gluten test shows product to be either straight rye or a mixture of wheat and rye flour.
Dec. 4	Wheat flour	Mrs. H. Porter, Marshall.....	No adulteration found.
Dec. 6	Buckwheat flour	H. O. Junkman, Beldenville.....	No adulteration found.
1919			
Feb. 7	Buckwheat flour	D. O. Stevingson, Chaseburg.....	No adulteration found.
Feb. 7	Wheat flour	W. R. Johnson, Kiel.....	No adulteration found.
Feb. 7	Wheat flour	A. L. Reed, Barnum.....	No adulteration found.
Feb. 7	Buckwheat flour	C. W. Poulter, Cumberland.....	No adulteration found.
Mar. 4	Buckwheat flour	R. A. Smith, Centuria.....	No adulteration found.
Mar. 4	Buckwheat flour	Elmer Lytle, Bradley.....	No adulteration found.
Mar. 24	Wheat flour	Wm. J. Gilson, Fremont.....	No adulteration found.
Mar. 24	Wheat flour	C. H. Chapel, Knapp.....	No adulteration found.
Mar. 24	Buckwheat flour	O. X. Davenport, Minong.....	No adulteration found.
Mar. 24	Buckwheat flour	Branch Laboratory, State Board of Health, Rhinelander.	No adulteration found.
April 2	Wheat flour	O. M. Huebner, Marion.....	No adulteration found.
April 2	Wheat flour	Geo. F. Bancroft, Arpin.....	No adulteration found.
April 4	Wheat flour	Mrs. E. A. Brown, Lake Beulah....	No adulteration found.
April 28	Whole wheat	Dennis Fitzgerald, Racine.....	Sample of wheat as delivered to the mill analyzed. The by-products,—middlings and the wheat flour returned from the mill also analyzed. Investigation showed that the mill was returning the proper proportion of wheat flour and by-products.
May 8	Rye flour	Dr. P. J. Roets, Merrill.....	No adulteration found.
May 8	Corn meal	Mrs. Mollie Webb, Campbellsport..	Product found to be entirely corn, but very poorly manufactured.
May 27	Wheat flour	Emil Zimmerman, Butternut.....	Sample contains considerable seed coat—a high grade product otherwise. No adulteration.
May 28	Wheat flour	The Henry Glade Milling Co., Grand Island, Ncb.	Not standard. Artificially bleached.

DAIRY PRODUCTS

Butter—Standard

Date	Bought of	Manufacturer or Jobber
1919		
April 4	The Lilliesand Store, Cambridge.....	W. R. Meier, Cambridge.
May 8	Alto Creamery Co., Waupun.....	Alto Creamery Co., Waupun.

Butter—Not Standard or Misbranded

Date	Bought of	Manufacturer	Per cent milk fat	Per cent moisture	Remarks
1918					
Aug. 26	Earl Daugherty, Steuben.	Larson Dairy Assn., Gays Mills....	.....	15.88	Sold as 1 lb. Net weight 14% oz.
Oct. 10	H. G. Helmer, Richland... Center.	J. T. Scott, Richland Center.....	81.39	15.40	Misbranded. Net weight 14 25/32 oz. Below stand- ard in fat.
Oct. 10	F. Knight, Plainfield.....	.....	.....	.....	Nut oleomargarine served for butter.
Dec. 2	E. E. Hodgkin, Madison....	.....	79.63	15.60	Below standard in fat.
Dec. 5	Sheboygan Dairy Products Co., Green Bay.	Sheboygan Dairy Products Co., Green Bay.	78.63	16.41	Below standard in fat.
Dec. 5	Arctic Ice Cream Co., Green Bay.	Arctic Ice Cream Co., Green Bay..	79.69	15.34	Below standard in fat.
Dec. 6	Kielsemeier Co., Manitowoc	Kielsemeier Co., Manitowoc.....	71.39	23.98	Below standard in fat.
Dec. 6	Kielsemeier Co., Manitowoc	Kielsemeier Co., Manitowoc.....	75.89	19.72	Below standard in fat.
Dec. 17	Victoria Hotel, Manitowoc	Kielsemeier Co., Manitowoc.....	76.30	19.35	Below standard in fat.
Dec. 17	Sheboygan Dairy Products Co., Green Bay.	Sheboygan Dairy Products Co., Green Bay.	79.01	15.88	Below standard in fat.
Dec. 17	H. Schroeder, Nelson.....	.....	.....	.....	Oleomargarine served as butter.
Dec. 28	Mrs. E. R. McIntire, Madison.	.....	80.45	14.85	Below standard in fat.
Dec. 28	Frank Bros., Madison.....	Sheboygan Dairy Products Co., Madison.	80.14	15.04	Below standard in fat.
1919					
Feb. 8	Frank Hanzlek, Chippewa Falls.	.....	77.84	16.45	Below standard in fat.

DAIRY PRODUCTS—Continued

Butter—Not Standard or Misbranded—Continued

Date	Bought of	Manufacturer	Per cent milk fat	Per cent moisture	Remarks
1919					
Feb. 11	Phil D. Hendershot, Platteville.	.....	79.41	15.02	Below standard in fat.
Feb. 18	Chippewa Model Dairy Co., Chippewa Falls.	Chippewa Model Dairy Co., Chippewa Falls.	78.93	14.94	Below standard in fat.
Mar. 3	Abe Heer, Monroe.....	.....	.....	.....	Not standard. Fat falls below required Reichert-Meissel number.
May 1	C. J. E. Nelssen, Clear Lake.	Clear Lake Cry. Co., Clear Lake..	79.56	16.02	Below standard in fat.
May 7	Harrisville Cry. Butter & Cheese Assn., Westfield.	Harrisville Cry. Butter & Cheese Assn., Westfield.	79.08	17.20	Below standard in fat.
June 4	Wis. Butter, Egg & Poul- try Co., Milwaukee.	Kiel Dairy Products Co., Kiel.....	81.11	14.00	Below standard in fat.
June 4	Wis. Butter, Egg & Poul- try Co., Milwaukee.	Sheboygan Dairy Products Co., Green Bay.	80.52	14.19	Below standard in fat.
June 4	Kielsmeier Co., Milwaukee	Kielsmeier Co., Manitowoc.....	76.97	18.00	Below standard in fat.
June 12	Puerner Cry. Co., Marsh- field.	Puerner Cry. Co., Marshfield.....	81.00	14.17	Below standard in fat.
June 12	Puerner Cry. Co., Marsh- field.	Puerner Cry. Co., Marshfield.....	81.15	13.96	Below standard in fat.
June 13	Richard Birkett, Oostburg	Sheboygan Dairy Products Co., Sheboygan.	81.70	14.98	Below standard in fat.
June 26	Kielsmeier Co., Manitowoc.	Kielsmeier Co., Manitowoc.....	74.16	19.59	Below standard in fat.
June 26	Kielsmeier Co., Manitowoc.	Kielsmeier Co., Manitowoc.....	75.80	19.17	Below standard in fat.
June 26	Kielsmeier Co., Manitowoc.	Kielsmeier Co., Manitowoc.....	71.70	20.00	Below standard in fat.
June 28	Otto Muenchow, Wausau.	Plautz Creamery Co., Merrill.....	79.76	15.80	Below standard in fat.

Butter—Submitted Samples

Date	Submitted by	Remarks
1918		
July 17	C. E. Lee, Madison.....	Moisture 14.26%, fat 80.51%.
Aug. 10	G. H. Eigenberger, Madison.....	No foreign fat found.
Nov. 4	Geo. Henton, Doylestown.....	Free from foreign fat.
Nov. 20	J. A. Flanigan, Green Bay.....	Free from foreign fat.
Nov. 20	J. A. Flanigan, Green Bay.....	Free from foreign fat.
Nov. 26	A. N. Winchell, Madison.....	Free from foreign fat.
Dec. 8	Wild Rose Creamery Co., Wild Rose.....	Free from foreign fat.
Dec. 10	B. E. Miller, Nakoma.....	Free from foreign fat.
Dec. 10	Mrs. Hamilton, Police Matron, Madison.....	Free from foreign fat.
Dec. 26	Wm. J. Schull, Campbellsport.....	Standard.
Dec. 27	Geo. Arde, Green Bay.....	Free from foreign fat.
1919		
Jan. 8	Mrs. L. K. Luse, Superior.....	Free from foreign fat.
Jan. 17	C. E. Lee, Madison.....	Not standard. Below standard in fat.
Jan. 29	Peterson's Cash Grocery, Waupaca.....	Free from foreign fat. Butter rancid. Has a lardy, tallowy texture.
Feb. 15	F. H. King, New London.....	Free from foreign fat.
Mar. 26	W. R. Meier, Cambridge.....	Not standard. Contains too much moisture and too little fat.
April 17	Dr. Jesse L. Bender, Richland Center.....	Free from foreign fat.
April 23	John B. Goulette, Hayward.....	Free from foreign fat. Contains much moisture.
April 23	John B. Goulette, Hayward.....	Free from foreign fat.
April 25	J. A. Hodgins, Appleton.....	Free from foreign fat.
April 28	Edward Babeock, Madison.....	Free from foreign fat. Old and rancid.
May 21	Dr. F. B. Welch, Janesville.....	Free from foreign fat.

Cheese—Standard. Tested for fat and moisture

Date	Bought of	Manufacturer
1918		
Dec. 19	Kewaskum Creamery Co., Kewaskum.....	
1919		
Feb. 14	C. E. Blodgett Cheese Co., Marshfield.....	H. H. Solle, Osseo.
April 14	H. M. Scott, Waldo.....	H. M. Scott, Waldo.
April 14	Davis Bros. Cheese Co., Plymouth.....	L. L. Clark, Greenleaf.
April 19	C. E. Blodgett Cheese Co., Marshfield.....	H. H. Solle, Osseo.

DAIRY PRODUCTS—Continued

Cheese—Tested for moisture and found to contain 40% or less

Date	Bought of	Manufacturer or Jobber
1918		
Nov. 12	Wachter Bros., Sheboygan Falls.....	
Nov. 23	Simon Cheese Co., Appleton.....	
Nov. 26	Fred Maidens, Antigo.....	Fred Maidens, Antigo.
Dec. 5	F. A. Leitzke, Merrill.....	Albert Pfaff, Mosinee.
Dec. 10	C. E. Blodgett Cheese Co., Marshfield.....	A. W. Bruss, Colby.
Dec. 10	Hull Cheese & Butter Co., Colby.....	Hull Cheese & Butter Co., Colby.
Dec. 10	Colby Cheese Co., Colby.....	W. D. Fecker, Colby.
Dec. 19	Pauly & Pauly Cheese Co., Edgar.....	Poplar Grove Cheese & Butter Co., Edgar.
Dec. 19	Pauly & Pauly Cheese Co., Edgar.....	W. L. Becker, Edgar.
Dec. 26	P. J. Schaefer Co., Marshfield.....	West Eaton Cheese Co., Greenwood.
Dec. 27	P. J. Schaefer Co., Marshfield.....	Otto Gruenke, Granton.
Dec. 27	Cloverbelt Cheese Co., Spencer.....	F. O. Justman, Unity.
1919		
Feb. 7	Dow Cheese Co., Thorp.....	Emil W. Ehlert, Thorp.
Feb. 7	Dow Cheese Co., Curtiss.....	Melvin Larkee, Medford.
Feb. 7	Dow Cheese Co., Curtiss.....	Henry House, Curtiss.
Feb. 14	P. J. Schaefer Co., Marshfield.....	J. J. Zastrow, Stetsonville.
Feb. 14	P. J. Schaefer Co., Marshfield.....	C. A. Bulgrine, Owen.
Feb. 20	H. H. Solie, Osseo.....	H. H. Solie, Osseo.
Feb. 20	C. E. Blodgett Cheese Co., Marshfield.....	Wm. Laabs, Greenwood.
Feb. 25	Pauly & Pauly Cheese Co., Marathon City.....	A. W. Pagel, Marathon City.
Feb. 26	Blodgett Cheese Co.....	Aug. Ehlert, Stanley.
Feb. 26	Blodgett Cheese Co.....	Aug. Ehlert, Stanley.
Feb. 27	C. A. Straubel Co., Antigo.....	F. J. Buss, Antigo.
April 14	Kraft Bros., Plymouth.....	Fairmont Creamery Co., Green Bay.
April 14	Kraft Bros., Plymouth.....	
April 14	Sheboygan County Cheese Producers Federation, Plymouth.....	Elmer Termot, Plymouth.
April 14	Sheboygan County Cheese Producers Federation, Plymouth.....	Walter Liebertrau, Plymouth.
April 14	Sheboygan County Cheese Producers Federation, Plymouth.....	Jim Lord, Plymouth.
April 14	H. Blanke Cheese Co., Plymouth.....	Blanke, Meyer & Pieron, Fredonia.

April 18	C. E. Blodgett Cheese Co., Greenwood.....	Town of Warner Cheese Factory, Greenwood.
April 26	C. E. Blodgett Cheese Co., Marshfield.....	Dick Tiepkema, Vesper.
April 26	C. E. Blodgett Cheese Co., Stanley.....	Lee Henderson, Stanley.
May 7	Oakwood Cheese Factory, Waupun.....	
May 7	Oakwood Cheese Factory, Waupun.....	South Alma Butter & Cheese Assn., Alma Center.
May 20	South Alma Butter & Cheese Assn., Alma Center.....	
June 4	Beaver Cheese Factory, Randolph.....	Beaver Cheese Factory, Randolph.
June 10	Louis M. Meyer, Lena.....	Louis M. Meyer, Lena.
June 12	John G. Holzschuh, Spencer.....	John G. Holzschuh, Spencer.
June 16	Gridley Dairy Co., Cedar Grove.....	Gridley Dairy Co., Cedar Grove.
June 17	Davis Bros., Plymouth.....	Hugo G. Rohde, Kiel.
June 17	J. H. Wheeler, Plymouth.....	Emil Diehs.
June 17	H. Blanke, Plymouth.....	Henry Beil.
June 17	H. Blanke, Plymouth.....	G. M. Matzniek, Kiel.
June 17	Henry Blanke, Plymouth.....	Theo. Diekeral, New Holstein.
June 17	Davis Bros., Plymouth.....	Walter Dietrich, Kiel.
June 17	Davis Bros., Plymouth.....	Walter Olm, Kiel.
June 17	Davis Bros., Plymouth.....	School Hill Cheese Factory, Kiel.
June 17	J. H. Wheeler, Plymouth.....	Louis Corners Factory.
June 17	Davis Bros., Plymouth.....	Edwin Voigt.
June 20	Star Valley Cheese Assn., La Farge.....	Star Valley Cheese Assn., La Farge.
June 23	Guy E. Melendy, Sheboygan Falls.....	Guy E. Melendy, Sheboygan Falls.
June 27	S. H. Conover Cheese Co., Plymouth.....	S. J. Stevens, Random Lake.
June 27	H. Blanke Cheese Co., Plymouth.....	Peter Pauly, Jackson.
June 27	H. Blanke Cheese Co., Plymouth.....	Dennis Schockmel, Glenbeulah.
June 27	H. Blanke Cheese Co., Plymouth.....	Jos. Flath, Glenbeulah.
June 27	Dow Cheese Co., Plymouth.....	Jacob Hertel, Chilton.
June 27	Davis Bros. Cheese Co., Plymouth.....	
June 27	Davis Bros. Cheese Co., Plymouth.....	

Cheese—Tested for Moisture and Found to Contain More than 40%

Date	Bought of	Manufacturer or Jobber	Per cent moisture
1918			43.24
Oct. 1	Paul Luecke, Elkhart Lake.....		42.31
Oct. 3	Chas. Risse, Randonm Lake.....		41.7
Oct. 3	A. Zelm, Plymouth.....		41.94
Oct. 15	Steve Koenigs, Peebles.....		

DAIRY PRODUCTS—Continued

Cheese—Tested for Moisture and Found to Contain More than 40%—Continued

Date	Bought of	Manufacturer or Jobber	Per cent moisture
1918			
Oct. 16	Mat Guelig, Calvary.....		45.81
Oct. 16	Theodore Sonnabend, Greenleaf.....		42.18
Oct. 22	O. A. Voechting, Sheboygan.....		42.41
Oct. 23	L. A. Wrensch, Sherwood.....		40.84
Nov. 7	C. H. Zutz, Rice Lake.....	C. H. Zutz, Rice Lake.....	43.75
Nov. 7	Schwenzen & Hiller, Plymouth.....		42.98
Nov. 12	R. P. Dassow, Sheboygan Falls.....		41.74
Nov. 13	H. M. Scott, Waldo.....		42.04
Nov. 14	Dow Cheese Co., Merrill.....	Carl Wachsmith, Gleason.....	42.0
Nov. 14	Dow Cheese Co., Merrill.....	John G. Nuttr, Merrill.....	40.94
Nov. 15	P. J. Schaefer Cheese Co., Wausau.....	John Fennema, Wausau.....	40.76
Nov. 16	C. E. Blodgett Cheese Co., Greenwood.....	F. W. Zastrow, Greenwood.....	41.05
Nov. 16	C. E. Blodgett Cheese Co., Greenwood.....	Walter Hintz, Withee.....	41.02
Nov. 18	C. E. Blodgett Cheese Co., Marshfield.....	Geo. Schmid, Stratford.....	47.72
Nov. 18	Paul Kleinhaus, Fond du Lac.....	Paul Kleinhaus, Fond du Lac.....	40.82
Nov. 22	Portland Cheese Factory.....		41.66
Nov. 23	C. A. Radke & Sons, Eland.....		41.90
Nov. 26	C. A. Straubel Co., Antigo.....	E. M. Cejka, Bryant.....	41.94
Dec. 4	E. W. Guenther, Random Lake.....		41.89
Dec. 4	F. J. Mulvey, Random Lake.....		42.87
Dec. 5	F. P. Baker, St. Cloud.....		44.66
Dec. 6	L. A. Wrensch, Sherwood.....		43.52
Dec. 6	J. H. Wagner, Fond du Lac.....		43.61
Dec. 10	Colby Cheese Co., Colby.....	John Tesmer, Colby.....	40.21
Dec. 10	Riverside Cheese Co., Colby.....	Riverside Cheese Co., Colby.....	40.60
Dec. 14	E. W. Guenther, Random Lake.....		40.36
Dec. 20	Wisconsin Cheese Producers Federation, Plymouth.....		41.51
Dec. 20	Wisconsin Cheese Producers Federation, Plymouth.....		43.44
Dec. 27	Cloverbelt Cheese Co., Spencer.....		43.22
Dec. 27	P. J. Schaefer Co., Marshfield.....	Clear Creek Cheese & Butter Co., Cadott.....	43.22
		Wm. Weber, Vesper.....	41.00
1919			
Jan. 13	Davis Bros., Plymouth.....		43.63

Jan. 20	Oscar Roeder, Plymouth.....	41.78
Jan. 20	H. A. Kalk, Sheboygan Falls.....	40.81
Jan. 20	Louis Gruenewald, Sheboygan.....	42.08
Jan. 20	O. A. Voechting, Sheboygan.....	41.59
Jan. 24	F. P. Baker, St. Cloud.....	44.00
Jan. 24	F. P. Baker, St. Cloud.....	46.68
Jan. 25	Ed. Meinhardt, Hortonville.....	42.34
Jan. 25	Zion Coop. Cheese Co., Omro.....	42.43
Feb. 7	Dow Cheese Co., Thorp.....	42.41
Feb. 7	Dow Cheese Co., Curtiss.....	40.62
Feb. 10	Frank O'Connor, Fond du Lac.....	41.37
Feb. 10	Frank O'Connor, Fond du Lac.....	40.71
Feb. 11	Louis Guenewald, Sheboygan.....	42.19
Feb. 11	Louis Guenewald, Sheboygan.....	41.86
Feb. 14	C. E. Blodgett Cheese Co.....	43.78
Feb. 18	Peacock Cheese Co., Madison.....	45.34
Feb. 18	Peacock Cheese Co., Madison.....	45.67
Feb. 20	C. E. Blodgett Cheese Co.....	41.15
Feb. 22	P. J. Schaefer Cheese Co.....	40.77
Feb. 25	Pauly & Pauly Cheese Co., Marathon City.....	40.12
Feb. 26	Blodgett Cheese Co.....	40.60
Mar. 6	Harry Radke, Bear Creek.....	41.69
Mar. 7	Dow Cheese Co., Merrill.....	41.16
Mar. 7	Dow Cheese Co., Merrill.....	41.26
Mar. 10	Rice Lake Produce Co., Rice Lake.....	43.88
Mar. 15	Dow Cheese Co., Thorp.....	46.72
April 14	H. Blanke Cheese Co., Plymouth.....	41.17
April 14	Kraft Bros., Plymouth.....	41.55
April 14	Kraft Bros., Plymouth.....	42.22
April 18	C. E. Blodgett Cheese Co., Greenwood.....	40.6
May 7	Anthony Gsenheck, Lone Rock.....	40.47
May 22	Town Line Cheese Factory, Lowell.....	41.19
May 22	Town Line Cheese Factory, Lowell.....	42.74
June 6	Independent Cheese Factory, Plymouth.....	41.74
June 6	Independent Cheese Factory, Plymouth.....	40.48
June 24	Oscar L. Roeder, Plymouth.....	40.15
June 27	S. H. Conover Cheese Co., Plymouth.....	40.44
June 27	Dow Cheese Co., Plymouth.....	40.49
	Fred Greve, Thorp.....	
	Bert Hinkle, Medford.....	
	M. L. Treichel, Neillsville.....	
	T. B. Milton, Lodi.....	
	T. B. Milton, Lodi.....	
	Williams Creamery Co., Augusta.....	
	Otto Gruenke, Granton.....	
	J. M. Choiniere, Marathon City.....	
	Aug. Ehlert, Stanley.....	
	Trout Brook Cheese Factory, Merrill.....	
	Grand Father Cheese Factory, Merrill.....	
	C. H. Zutz, Rice Lake.....	
	Louis Horn, Withee.....	
	Elmer Seaboldt, Oostburg.....	
	Williams Creamery Co., Augusta.....	
	Anthony Greenheck, Lone Rock.....	
	Alois Froelich, Reeseville.....	
	Alois Froelich, Reeseville.....	
	Jos. A. Flath, Plymouth.....	
	Jos. A. Flath, Plymouth.....	
	Oscar L. Roeder, Plymouth.....	
	Win. DeMunk, Calvary.....	

DAIRY PRODUCTS—Continued

Cheese—Not Standard, Tested for Moisture and Fat

Date	Bought of	Manufacturer	Per cent moisture	Per cent fat	Ratio	Remarks
1918						
Dec. 10	Kewaskum Creamery, Kewaskum	.....	41.72	27.0	46.3	Made from skim milk. Contains an excessive amount of water.
Dec. 19	Kewaskum Creamery, Kewaskum	.....	41.46	29.6	50.56	Contains an excessive amount of water.
Dec. 19	Kewaskum Creamery, Kewaskum	.....	37.02	30.29	48.12	Made from skim milk.
1919						
June 11	Davis Bros. Cheese Co., Plymouth.	H. B. Woldt, Jackson.....	40.10	28.4	47.57	Made from skim milk.
June 16	G. J. Kleinhesslink, Oostburg...	G. J. Kleinhesslink, Oostburg..	40.70	30.0	50.5	Contains an excessive amount of water.
June 17	Wis. Cheese Producers' Federa- tion, Plymouth.	H. M. Scott, Waldo.....	41.19	27.0	45.9	Contains an excessive amount of water. Low fat content indicates either skimming or the addition of a foreign substance.

Cheese—Submitted Samples

Date	Submitted by	Per cent moisture	Remarks
1918			
July 1	John Kubly, Monroe.....	.....	Suspected of containing ptomaines. None found. Sample was poorly put up. Leaked fat. Paraffine cap poorly put on, allowing paraffine to enter crevices in the cheese sample.
July 23	Oscar Knudson, New London.....	43.58	
Aug. 20	D. W. Wegner, Fond du Lac.....	41.51	Fat 29.1%. Ratio of fat to total solids 49.7%.
Oct. 11	Plymouth Cheese Co., Mineral Point.....	43.71	Not standard.
Oct. 30	H. B. Stanz Co., Milwaukee.....	37.35	
1919			
Jan. 22	H. Bilgrien, Iron Ridge.....	40.37	Sample marked "E. McDermott."
Jan. 22	H. Bilgrien, Iron Ridge.....	37.60	Sample marked "Got. Friedel."
Jan. 22	H. Bilgrien, Iron Ridge.....	35.33	
Jan. 22	H. Bilgrien, Iron Ridge.....	39.77	Sample marked "Bis. x H. O. Christ."
Jan. 22	H. Bilgrien, Iron Ridge.....	35.49	Sample marked "J. L. Westphal."
Jan. 22	H. Bilgrien, Iron Ridge.....	42.39	Sample marked "H. Otto."

DAIRY PRODUCTS—Continued

Cheese—Submitted Samples

Date	Submitted by	Per cent moisture	Remarks
Jan. 22	H. Bilgrien, Iron Ridge.....	36.30	Sample marked "E. G."
Jan. 22	H. Bilgrien, Iron Ridge.....	40.70	Sample marked "Carl Brum."
Jan. 28	H. Bilgrien, Iron Ridge.....	42.53	"Boertschi."
Jan. 28	H. Bilgrien, Iron Ridge.....	44.15	"Got. Friedel."
Jan. 28	H. Bilgrien, Iron Ridge.....	40.75	"H. Otto."
Jan. 28	H. Bilgrien, Iron Ridge.....	38.11	"E. Indermuehle."
Jan. 28	H. Bilgrien, Iron Ridge.....	36.83	"J. Leutinger."
Feb. 4	A. F. Westphal, Hartford.....	51.8	
Mar. 27	Harry Kleuter, Madison.....	34.28	
Mar. 27	Harry Kleuter, Madison.....	37.22	
April 14	H. B. Stanz Co., Milwaukee.....	38.6	
April 28	Harry Kleuter, Madison.....	38.16	
May 14	Jackson Dairy Co., Saukville.....	39.3	Fat 29.8%. Ratio of fat to total solids 49.1%.
June 10	Jackson Dairy Co., Jackson.....	38.45	Fat 29.6%. Ratio of fat to total solids 48.00%.
June 21	Fairmont Creamery Co., Green Bay.....	37.75	Fat 30.0%. Ratio of fat to total solids 48.19%.
June 21	Fairmont Creamery Co., Green Bay.....	37.46	Fat 30.0%. Ratio of fat to total solids 47.9%.

Cream from City Supply—Standard

Date	Delivered by	City
1918		
Nov 19	J. Sauler, Brodhead.....	Brodhead.
1919		
April 18	W. M. Boyle, Platteville.....	Platteville.
April 18	J. Linden, Platteville.....	Platteville.
April 18	Fox Bros., Platteville.....	Platteville.
April 18	W. M. Boyle, Platteville.....	Platteville.
April 18	Fox Bros., Platteville.....	Platteville.
April 18	Joe Linden, Platteville.....	Platteville.
May 10	Clover Blossom Creamery, Beaver Dam.....	Beaver Dam.

DAIRY PRODUCTS—Continued
Cream from City Supply—Not Standard

Date	Delivered by	City	Per cent milk fat
1918			
Oct. 9	Krenzke Bros., Racine.....	Racine	16.50
Dec. 13	A. M. Hanson, Waupaca.....	Waupaca	13.6
Dec. 16	David Von Buren, Oshkosh.....	Oshkosh	11.10
Dec. 16	John King, Oshkosh.....	Oshkosh	16.2
Dec. 16	A. O. Peep, Oshkosh.....	Oshkosh	14.85
Dec. 16	Nottleman Bros., Oshkosh.....	Oshkosh	14.85
Dec. 16	Jones & Son, Oshkosh.....	Oshkosh	15.5
Dec. 16	Mrs. B. Ditter, Oshkosh.....	Oshkosh	15.0
Dec. 16	Ed. Schussler, Oshkosh.....	Oshkosh	16.00
Dec. 16	A. Wendland, Oshkosh.....	Oshkosh	15.0
Dec. 16	Nottleman Bros., Oshkosh.....	Oshkosh	14.95
1919			
Jan. 17	Herman Bros., Sheboygan.....	Sheboygan	15.70
Jan. 17	Siegl Dairy Co., Sheboygan.....	Sheboygan	16.90
Jan. 17	Grasse Milk Products Co., Sheboygan.....	Sheboygan	14.20
Jan. 23	C. C. Fries, Richland Center.....	Richland Center	15.60
Mar. 5	Lew L. Hauver, Lake Geneva.....	Lake Geneva	12.35
Mar. 5	J. M. & L. J. O'Reilly, Merrill.....	Merrill	11.5
Mar. 21	C. Walter, Chippewa Falls.....	Chippewa Falls	12.75
May 14	F. O. Hodsdon, Stevens Point.....	Stevens Point	16.50

Miscellaneous Creams

Twenty-one samples of cream were tested for the purpose of checking up Babcock determinations which had been made by factory men on these samples.

Cream—Submitted Samples

Date	Submitted by	Per cent milk fat	Date	Submitted by	Per cent milk fat
1918			1919		
Sept. 28	Bernard Kuckkahn, Juneau.....	46.0	Feb. 19	Joel Haugh, Whitehall.....	21.
Oct. 31	G. W. Lippert, Athens.....	41.2	Feb. 26	H. Peterson, Cazenovia.....	23.8
Nov. 4	Martin Hook, Athens.....	35.9	Mar. 10	E. A. Nelson, Kaukauna.....	25.0
Nov. 6	Luick Ice Cream Co., Milwaukee.....	22.96	Mar. 10	W. M. Souls, Arena.....	37.0
Nov. 18	Luick Ice Cream Co., Milwaukee.....	20.83	April 2	C. Walter, Chippewa Falls.....	25.0
Nov. 25	G. W. Lippert, Athens.....	40.0	April 3	Hoard Creameries, Fort Atkinson.....	17.18
Nov. 25	Wm. F. Marsch, Columbus.....	18.0	April 22	C. Walter, Chippewa Falls.....	14.7
Nov. 29	G. W. Lippert, Athens.....	34.0	April 22	L. A. Haesley, Kendall.....	19.0
Dec. 4	Chas. Schroeder, Fond du Lac.....	21.4	April 22	L. A. Haesly, Kendall.....	21.0
Dec. 4	Chas. Schroeder, Fond du Lac.....	20.4	April 22	L. A. Haesly, Kendall.....	17.0
1919			May 8	J. F. Moon, Benton.....	17.4
Jan. 14	W. Luick, Milwaukee.....	21.6	May 29	Matt Kivi, Hurley.....	30.0
Jan. 15	Luick Ice Cream Co., Milwaukee.....	11.63	May 29	Ladysmith Cooperative Cry. Co., Ladysmith.....	27.0
Feb. 3	H. Thoreson, Whitehall.....	23.00	June 11	Bernard Nix, Strum.....	23.50
Feb. 17	Alex Koller, Durand.....	20.0	June 27	E. G. Koller, Durand.....	35.25

Ice Cream—Standard

Date	Bought of	Manufacturer
1919		
June 19	Rennebohm's Pharmacy, Madison.....	Kennedy Dairy Co., Madison.
June 26	Jones Pharmacy, Beloit.....	Luick Ice Cream Co., Milwaukee.
June 26	Elliott's Candy Shop, Beloit.....	Consumers Milk Co., Beloit.
June 26	H. J. Luethy, West Bend.....	Geo. Mansfield Co., Milwaukee.
June 26	Regner Pharmacy, West Bend.....	Luick Ice Cream Co., Milwaukee.
June 26	Berens & Miller, West Bend.....	Carver Ice Cream Co., Oshkosh.

DAIRY PRODUCTS—Continued

Ice Cream—Not Standard

Date	Bought of	Manufacturer	Per cent milk fat
1919			
June 23	Wornsey Bros., Janesville.....	Shurtleff Co., Janesville.....	9.88
June 26	H. F. Bauer, West Bend.....	Bloomer Ice Cream Co., Milwaukee.....	11.33
June 31	American Ice Cream Co., Madison.....	American Ice Cream Co., Madison.....	9.77

Milk—Standard. Delivered to Creamery, Cheese Factory or Condensary

Date	Delivered by	Delivered to
1918		
Aug. 6	I. Lund, Bloomer.....	Armour Co. Condensery.
Aug. 6	Bert Benson, Bloomer.....	Armour Co. Condensery.
Aug. 6	E. Rosenbrook, Bloomer.....	Armour Co. Condensery.
Aug. 6	Herman Schroetter, Bloomer.....	Armour Co. Condensery.
Aug. 6	F. W. Musner, Bloomer.....	Armour Co. Condensery.
Aug. 6	A. Belau, Bloomer.....	Armour Co. Condensery.
Aug. 6	Carl G. Knutson, Bloomer.....	Armour Co. Condensery.
Oct. 3	Martin Bull, Windsor.....	Token Creek Dairy Co.
Oct. 3	G. A. Crabtree, Windsor.....	Token Creek Dairy Co.
Oct. 3	M. Jensen, Windsor.....	Token Creek Dairy Co.
Oct. 3	Wm. Sommers, Windsor.....	Token Creek Dairy Co.
Oct. 3	C. Adams, Windsor.....	Token Creek Dairy Co.
1919		
Jan. 23	Frank S. Bauer, Grand Rapids.....	Chambers Creamery Co.
Jan. 28	John Graczyk, Junction City.....	Dairy Belt Cheese Factory.
April 28	Ole Mattson, Cumberland.....	Cumberland Creamery Co.
April 28	W. C. Slocum, Cumberland.....	Cumberland Creamery Co.
May 13	Wm. Gritzel, Burnette.....	Libby Condensery.
May 13	A. A. Nowak, Juneau.....	Libby Condensery.
May 29	U. Rufer, Monticello.....	Hefty, ZimBrummen Cheese Factory.

Milk—Not Standard. Delivered to Cheese Factories, Creameries or Condensaries

Date	Sold or Delivered by	Sold or Delivered to	Sp. G. 15.5°	Per cent milk fat	Per cent total solids	Per cent solids not fat	I. R. of whey 20° C.	Remarks
1918								
July 5	Henry Dahlke, Verona.....	Wilke Cheese Factory.....	1.0253	2.65	9.48	6.83	35.45	Watered.
July 12	Ed. Frederickson, Spring Green..	Lower Big Hollow Cheese Factory.	1.0306	3.10	11.39	8.29		
July 12	Tom Bindl, Spring Green.....	Lower Big Hollow Cheese Factory.	1.0293	3.30	11.26	7.96		Below standard in solids not fat.
July 13	Fred Krenz, Bloomer.....	Armour Co.'s Condensery.....	1.0295	3.25	11.46	8.21		Below standard in solids not fat.
July 13	Peter Bowe, Bloomer.....	Armour Co.'s Condensery.....	1.0291	3.67	11.85	8.18		Below standard in solids not fat.
July 13	Nick Hattamer, Bloomer.....	Armour Co.'s Condensery.....	1.0328	2.63	11.40	8.80		Skimmed.
July 13	Herman Ruffelt, Bloomer.....	Armour Co.'s Condensery.....	1.0302	3.40	11.71	8.31		Below standard in solids not fat.
July 13	Nick Nager, Bloomer.....	Armour Co.'s Condensery.....	1.0324	2.68	11.31	8.66		Skimmed.
July 23	A. Richards, Somerset.....	Lagrander Cheese Factory.....	1.0339	2.43	11.58	9.15		Skimmed.
July 23	F. Parent, Somerset.....	Lagrander Cheese Factory.....	1.0305	2.55	10.93	8.33	40.0	Below standard in fat.
July 23	S. Cloutier, Somerset.....	Lagrander Cheese Factory.....	1.0344	3.05	12.31	9.26		Skimmed.
July 23	St. Swenson, Mt. Horeb.....	Swenson Cheese Factory.....	1.0286	2.95	10.56	7.61	37.0	Watered.
July 30	John Mueller, Brodhead.....	Jacob Marty Cheese Factory.....	1.0220	2.80	9.24	6.44	34.4	Watered.
July 30	John Mueller, Brodhead.....	Jacob Marty Cheese Factory.....	1.0227	2.7	8.78	6.08	34.2	Watered.
Aug. 6	A. J. Mohr & Son, Bloomer.....	Armour Co.'s Condensery.....	1.0307	3.40	11.58	8.18		Below standard in solids not fat.
Aug. 6	Fred Krenz, Bloomer.....	Armour Co.'s Condensery.....	1.0277	2.73	7.47			Watered.
Aug. 6	Wm. Ruff, Bloomer.....	Armour Co.'s Condensery.....	1.0305	3.20	11.46	8.26		Below standard in solids not fat.
Aug. 6	Henry Lalk, Bloomer.....	Armour Co.'s Condensery.....	1.0309	3.65	11.81	8.16		Below standard in solids not fat.
Aug. 6	Andrew Hanson, Bloomer.....	Armour Co.'s Condensery.....	1.0392	3.53	11.65	8.12		Below standard in solids not fat.
Aug. 6	Joe Hanson, Bloomer.....	Armour Co.'s Condensery.....	1.0390	3.73	11.89	8.16		Below standard in solids not fat.
Aug. 6	Henry Hassmer, Bloomer.....	Armour Co.'s Condensery.....	1.0313	3.5	11.64	8.14		Below standard in fat.
Aug. 7	Tony Hassmer, Bloomer.....	Armour Co.'s Condensery.....	1.0225	2.90	8.49	5.59	33.75	Watered.
Sept. 24	John Hetts, Fort Atkinson.....	Mansfield's Condensery.....	1.0219	2.67	8.61	5.94	34.0	Watered.
Sept. 24	Albert Kerth, Johnson Creek.....	Mansfield's Condensery.....	1.0308	2.95	11.15	8.20	40.00	Below standard in fat and solids not fat.

DAIRY PRODUCTS—Continued

Milk—Not Standard. Delivered to cheese factories, creameries or condensaries

Date	Sold or Delivered by	Sold or Delivered to	Sp. G. 15.5°	Per cent milk fat	Per cent total solids	Per cent solids not fat	I. R. of whey 20° C.	Remarks
1918								
Sept. 24	Helena Mueller, Johnson Creek..	Mansfield's Condensery	1.0298	2.80	10.79	7.99	40.1	Below standard in fat and solids not fat.
Sept. 24	C. W. Wollin, Johnson Creek	Mansfield's Condensery	1.0288	3.15	11.00	7.85	38.95	Below standard in solids not fat.
Sept. 24	William Loeder, Johnson Creek..	Mansfield's Condensery	1.0288	3.03	10.85	7.82	39.1	Below standard in solids not fat.
Sept. 24	Albert Christian, Johnson Creek.	Mansfield's Condensery	1.0275	2.95	10.50	7.55	37.3	Watered.
Sept. 24	F. Bohnsack, Johnson Creek.....	Mansfield's Condensery	1.0319	2.77	11.34	8.57	.....	Skimmed.
Sept. 24	F. Bogenschneider, Johnson Cr'k	Mansfield's Condensery	1.0311	2.60	11.06	8.46	.....	Watered.
Sept. 24	John Hetts, Fort Atkinson.....	Mansfield's Condensery	1.0219	2.67	8.61	5.94	34.	Badly watered.
Sept. 24	Carl Manth, Johnson Creek.....	Mansfield's Condensery	1.0283	2.95	10.69	7.74	38.3	Watered.
Sept. 24	Otto Klausch, Johnson Creek.....	Mansfield's Condensery	1.0339	3.25	12.55	9.30	.....	Slightly skimmed.
Oct. 3	O. E. Hunt, Windsor.....	Token Creek Cheese Factory.....	1.0201	2.57	8.45	5.88	34.1	Watered.
Oct. 2	Wm. Butterfield, Windsor.....	Token Creek Cheese Factory.....	1.0294	3.17	11.14	7.97	39.9	Below standard in solids not fat.
Oct. 4	Anthony Schirpka, Edgar.....	Our Lady's Cheese Factory.....	1.0283	2.83	10.37	7.52	37.35	Watered.
Oct. 4	Anthony Schirpka, Edgar.....	Our Lady's Cheese Factory.....	1.0294	3.05	11.19	8.14	38.35	Watered.
Nov. 16	John Schneider, Black Creek.....	Dietrich Cheese Factory.....	1.0285	3.75	11.41	7.66	37.4	Watered.
1919								
Jan. 16	John Britt, Stevens Point.....	Hodsdon's Milk Plant.....	1.0304	2.97	11.16	8.16	38.9	Watered and skimmed.
Jan. 17	John Britt, Stevens Point.....	Hodsdon's Milk Plant.....	1.0316	3.15	11.74	8.59	40.0	Slightly watered and skimmed.
Jan. 28	Rodney Grover, Junction City...	Dairy Belt Cheese Factory.....	1.0219	1.80	7.68	5.88	31.4	Badly watered.
Jan. 28	Mike Wayarski, Junction City...	Dairy Belt Cheese Factory.....	1.0310	3.00	11.26	8.26	39.5	Below standard in solids not fat.
Jan. 28	John Bobrowski, Junction City..	Dairy Belt Cheese Factory.....	1.0303	3.17	11.37	8.20	39.65	Below standard in solids not fat.
Jan. 28	Peter Rhoda, Junction City.....	Dairy Belt Cheese Factory.....	1.0297	3.02	10.91	7.89	39.3	Below standard in solids not fat.
Feb. 5	N. Berton, Eagle.....	Eagle Milk Plant.....	1.0254	3.10	9.56	6.46	34.5	Watered.
Feb. 11	Robert Krause, Genesee.....	Spring Brook Milk Plant.....	1.0270	3.15	10.37	7.22	37.6	Watered.
Feb. 15	G. Thayer, Whitewater.....	Whitewater Condensery	1.0319	2.78	11.13	8.35	.....	Below standard in fat and solids not fat.

Feb. 19	Louis Vandenberg, Green Bay...	Ellis Creek Cheese Factory.....	1.0251	2.60	9.45	6.85	35.7	Watered.
Mar. 7	M. Hoesly, New Glarus.....	New Glarus Condensery	1.030	3.03	11.06	8.03	39.6	Below standard in solids not fat.
Mar. 19	Nick Hoffman, Hubertus.....	St. Augustine Cheese Factory.....	1.0325	2.60	11.05	8.45	40.6	Slightly skimmed.
Mar. 19	Frank Preisgen, Hubertus.....	St. Augustine Cheese Factory.....	1.0286	4.10	11.76	7.64	39.0	Slightly watered.
Mar. 19	Joe Preisgen, Hubertus.....	St. Augustine Cheese Factory.....	1.0282	3.40	10.90	7.53	38.5	Watered.
Mar. 19	John Simon, Jr., Hubertus.....	St. Augustine Cheese Factory.....	1.0249	2.35	8.86	6.51	35.3	Watered.
Mar. 19	Rob Kohler, Hubertus.....	St. Augustine Cheese Factory.....	1.0311	2.70	10.72	8.07	40.1	Slightly watered.
Mar. 19	Mrs. John Theis, Hubertus.....	St. Augustine Cheese Factory.....	1.0285	3.60	11.45	7.85	40.0	Below standard in solids not fat.
Mar. 19	Wm. Zurn, Hubertus.....	St. Augustine Cheese Factory.....	1.0306	2.90	10.80	7.95	40.2	Below standard in fat and solids not fat.
April 2	Chas. F. Folkman, Clintonville..	Sheboygan Dairy Products Co.....	1.0309	3.20	11.39	8.19	39.8	Below standard in solids not fat as cows give it.
April 2	Chas. F. Folkman, Clintonville..	Sheboygan Dairy Products Co.....	1.032	2.90	11.05	8.15	39.8	Below standard in fat and solids not fat as cows give it.
April 10	Chas. Hardis, Milladore.....	Milladore Cheese Factory.....	1.0231	2.20	8.09	5.87	32.4	Watered.
April 11	Anton Brzezinski, Edgar.....	Island Cheese Factory.....	1.0288	2.80	10.30	7.50	38.0	Watered.
April 22	Mrs. C. Schumacher, Johnson Ck	Ayershire Creamery	1.0259	2.60	9.56	6.96	35.7	Watered.
April 28	Sever Bruce, Cumberland.....	Cumberland Creamery	1.0313	3.00	11.26	8.26	40.6	Below standard in solids not fat.
May 2	Ben Miller, Portage.....	Fox Glen Cheese Factory.....	1.0334	2.45	11.17	8.72	40.5	Skimmed.
May 7	Henry Sache, Thiensville.....	Thiensville Milk Plant.....	1.0308	3.50	11.34	7.84	38.6	Watered.
May 7	Otto Mueller, Thiensville.....	Thiensville Milk Plant.....	1.0294	3.30	10.95	7.65	37.6	Watered.
May 10	Chas. F. Fritz, White Creek.....	White Creek Cheese Factory.....	1.0313	3.10	11.28	8.18	39.0	Below standard in solids not fat.
May 13	Henry Lehman, Juneau.....	Libby Condensery	1.0285	2.70	10.37	7.67	38.6	Below standard in fat and solids not fat.
May 13	Otto Schreiber, Horicon.....	Libby Condensery	1.0297	2.80	10.59	7.79	39.4	Below standard in fat and solids not fat.
May 13	Tom Bertel, Juneau.....	Libby Condensery	1.0240	2.3	8.71	6.41	34.5	Watered.
May 20	Henry Bartel, Ixonia.....	Farmers Home Cheese Factory....	1.0276	3.00	10.53	7.53	36.9	Watered.
May 21	J. E. Dickeson, Chelsea.....	Greenwood Cheese Factory.....	2.00	.....	.....	.....	.....	Below standard in fat.
May 21	Joe Witche, Rib Lake.....	Greenwood Cheese Factory.....	2.65	.....	.....	.....	42.1	Below standard in fat.
May 29	Gottlieb Zimmerli, Monticello....	Hefty-ZumBrummen Cheese Factory	1.0319	2.90	11.68	8.78	40.5	Below standard in fat.
May 29	Emil Richard, Monticello.....	Hefty-ZumBrummen Cheese Factory	1.0318	2.50	11.17	8.67	39.9	Skimmed
June 17	A. Boelk, Warren, Ill.....	Opie Cheese Factory.....	.....	2.85	.....	.....	36.4	Watered.
June 17	A. Cook, Warren, Ill.....	Opie Cheese Factory.....	1.0336	2.70	11.48	8.78	41.7	Below standard in fat.

DAIRY PRODUCTS—Continued

Herd Samples Collected by Inspectors in Connection with Samples Taken at Cheese Factories, Creameries, and City Milk Supplies, Sent to Laboratory for Analysis

Date	From Herd of	Sp. G. 15.5°	Per cent milk fat	Per cent total solids	Per cent solids not fat	I. R. of whey at 20° C.	Remarks
1918							
July 5	H. Dahlke, Verona.....	1.0307	3.67	12.20	8.53	39.95	
July 26	Will Moore, Madison.....	1.0289	2.95	11.60	8.05	40.0	
July 26	Will Moore, Madison.....	1.0292	3.15	11.40	8.25	41.0	
July 30	St. Swenson, Mt. Horeb.....	1.0325	3.55	11.97	8.42	39.6	
July 30	John Mueller, Brodhead (Sample A).....	1.0295	3.65	11.91	8.21	40.45	
July 30	John Mueller, Brodhead (Sample B).....	1.0290	3.7	11.90	8.20	40.5	
Aug. 7	Tony Hussnur, Bloomer.....	1.0316	4.27	12.46	8.19	.....
Aug. 7	A. J. Mohr & Son, Bloomer.....	.....	4.30	12.01	8.71	.....
Sept. 26	Albert Kesten, Johnson Creek.....	1.0318	3.53	12.00	8.50	41.0	Night's milk.
Sept. 27	C. W. Wollin, Johnson Creek.....	1.0308	3.45	12.17	8.72	41.45	Night's milk.
Sept. 27	W. M. Loeder, Johnson Creek.....	1.0306	2.95	11.20	8.20	39.9	
Sept. 27	F. Bogenschneider, Johnson Creek.....	1.0312	3.57	12.10	8.53	.....	Morning's milk.
Sept. 28	Mrs. Helena Mueller, Johnson Creek.....	1.0292	3.45	11.41	7.99	40.0	Night's milk.
Sept. 28	F. Bohnsack, Johnson Creek.....	1.0308	3.25	11.76	8.51	.....	Night's milk.
Sept. 28	Otto Klausch, Johnson Creek.....	1.0322	3.50	12.45	8.93	.....	Morning's milk.
Sept. 28	Albert Christian, Lake Mills.....	1.0322	3.67	12.57	8.92	41.7	Morning's milk.
Sept. 29	John Hetts, Fort Atkinson.....	1.0290	3.25	11.13	7.88	38.6	Night's milk.
Oct. 3	O. E. Hunt, Windsor.....	1.0298	3.75	12.17	8.42	41.2	
Oct. 4	Anthony Schirpka, Edgar.....	1.0308	4.10	12.64	8.54	39.7	
Oct. 14	Carl Manth, Johnson Creek.....	1.0323	3.4	11.72	8.36	.....	Night's milk.
Oct. 22	Frank S. Bauer, Grand Rapids.....	1.0308	4.8	13.58	8.78	.....	Night's milk.
Nov. 19	John Schneider, Black Creek.....	1.0320	4.4	12.95	8.55	40.3	
Dec. 17	H. Bergelin, Appleton.....	1.0315	4.3	12.61	8.31	41.5	
1919							
Jan. 14	Philip Weber, Marshfield.....	1.0330	3.5	12.19	8.69	.....
Jan. 17	L. Dexhelmer, Sheboygan.....	1.0328	4.37	13.33	8.93	41.4	
Jan. 20	John Britz, Stevens Point.....	1.0329	4.00	13.04	9.04	41.1	
Jan. 22	Frank S. Bauer, Grand Rapids.....	1.0324	3.45	12.40	8.95	41.0	
Jan. 28	J. J. Bobrowski, Junction City.....	1.0322	4.00	12.51	8.51	42.3	
Jan. 29	Mike Wayerski, Junction City.....	1.0317	3.20	11.74	8.54	41.1	

Jan. 29	Rodney Grover, Junction City.....	1.0326	5.20	14.08	8.88	42.0	
Jan. 29	P. J. Rhode, Junction City.....	1.0302	3.00	10.92	7.92	39.2	
Jan. 29	John A. Graezky, Junction City.....	1.0312	3.40	11.71	8.31	42.7	
Feb. 10	Ned Burton, Eagle.....	1.0356	5.40			41.9	Night's milk.
Feb. 12	Robert Krause, Genesee.....	1.0329	3.78	12.90	9.12	41.4	Night's milk.
Feb. 17	G. Thayer, Whitewater.....	1.0306	2.9	11.22	8.32		
Feb. 25	Ned Burton, Eagle.....	1.0342	4.73	13.50	9.07	42.6	Night's milk.
Feb. 26	Thomas Soransen, Elkhorn.....	1.0302	4.25	12.50	8.25	42.1	Night's milk.
Mar. 31	Frank Preisgen, Hartford.....	1.032	3.87	12.44	8.57	41.4	
Mar. 14	Fred Larson, Cumberland.....	1.0305	3.75	12.29	8.54	41.5	
Mar. 31	Frank Preisgen, Hartford.....	1.0299	5.00	10.02	8.02	40.3	Night's milk.
Mar. 31	Joe Preisgen, Hartford.....	1.0307	4.10	12.37	8.27	40.2	Night's milk.
Mar. 31	James Cramton, Beloit.....	1.0322	3.80	12.74	8.94	40.9	
April 1	Wm. Zurn, Hartford.....	1.0290	2.6	10.24	7.64	38.5	
April 1	John Simon, Hubertus.....	1.0301	3.6	11.88	8.22	39.8	Morning's milk.
April 2	Niek Hoffmann, Hubertus.....	1.0320	3.1	11.44	8.34	40.4	Morning's milk.
April 2	Robert Kohler, Hartford.....	1.0327	3.2	11.88	8.68	41.4	Morning's milk.
April 2	Mrs. John Theis, Hubertus.....	1.0297	3.2	11.36	8.16	39.6	Morning's milk.
April 2	H. Waules, Sparta.....	1.0339	3.40	12.61	9.21	41.9	
April 2	Chas. F. Folkman, Clintonville.....	1.030	3.00	11.03	8.03	39.7	Night's milk.
April 11	Anton Brzezinski, Edgar.....	1.031	3.20	11.16	7.96	40.0	Night's milk.
April 23	Mrs. C. Schumacher, Johnson Creek.....	1.0317	3.25	11.80	8.50	40.3	Night's milk.
May 2	Ben Miller, Portage.....	1.0315	3.4	11.87	8.47	40.0	
May 7	Mrs. Wm. Frenz.....	1.035	3.85	12.79	8.94	41.3	
May 8	Otto Mueller, Thiensville.....	1.031	3.10	10.84	7.70	38.5	Morning's milk.
May 12	Henry Lehmann, Juneau.....	1.028	3.05	10.50	7.45	38.4	
May 13	Tom Bertel, Juneau.....	1.0290	2.9	10.57	7.67	39.3	
May 14	A. A. Nowak, Juneau.....	1.0325	3.65	12.53	8.88	41.9	
May 15	E. Nettleton, Stevens Point.....	1.0324	4.40	13.18	8.78	41.9	
May 20	Henry Bartel, Ixonia.....	1.0330	3.40	12.38	8.98	40.8	
May 26	Joe Witcke, Rib Lake.....		5.20			41.9	
May 26	Otto Mueller, Cedarburg.....	1.0321	3.20	11.98	8.78	40.7	Night's milk.
June 9	Emil Richard, Monticello.....	1.0321	3.25	11.90	8.61	39.8	
June 9	U. Rufer, Monticello.....	1.0315	2.70	11.06	8.36	39.2	
June 9	U. Rufer, Monticello.....	1.0321	2.95	11.41	8.46	40.4	
June 10	Gottlieb Zimmerli, Monticello.....	1.0321	2.95	11.41	8.46	40.4	
June 19	Arthur Boelk, Warren, Ill.....	1.0324	3.20	11.93	8.73	40.7	

DAIRY PRODUCTS—Continued

City Milk—Standard

Date	Delivered by	Date	Delivered by
1918		1919	
July 26	B. Rathman, Madison.	Jan. 22	Frank Bauer, Grand Rapids.
July 26	Ole Gilbertson, Madison.	Jan. 22	Chas. Simonson, Lone Rock.
Oct. 9	Krenzke Bros., Racine.	Jan. 31	J. N. Reuter, Prairie du Sac.
Oct. 9	Krenzke Bros., Racine.	Mar. 5	Clinton Pierce, Brodhead.
Nov. 19	J. Sauter, Brodhead.	Mar. 5	Brodhead Bakery, Brodhead.
Nov. 19	C. S. Pierce, Brodhead.	April 18	Fox Bros., Platteville.
1919		May 16	Clover Blossom Creamery, Beaver Dam.
Jan. 13	Weber Bros. Store, Marshfield.	June 11	C. Church, Stevens Point.
Jan. 14	Philip Weber, Marshfield.	June 27	O. B. Foster, Mauston.

City Milk—Not Standard

Date	Delivered by	City	Sp. G. 15.5°	Per cent milk fat	Per cent total solids	Per cent solids not fat	I. R. of whey 20° C.	Remarks
1918								
July 26	Fred Niebuhr, Madison.....	Madison	1.0286	4.47	12.51	8.04	.....	Below standard in solids not fat.
July 26	F. Sprecher, Madison.....	Madison	1.2098	3.65	11.83	8.18	.....	Below standard in solids not fat.
July 26	T. O. Mandt Dairy, Madison.....	Madison	1.0292	3.90	12.02	8.12	40.0	Below standard in solids not fat.
July 26	T. O. Mandt Dairy, Madison.....	Madison	1.0301	2.40	10.16	7.76	39.6	Below standard in solids not fat and fat.
July 31	J. C. Becker, Hurley.....	Hurley .....	.....	.....	.....	.....	.....	Milk sour, curdled and partly lost through leaky stopper. Immersion refractometer reading shows watering.
Oct. 22	Frank S. Bauer, Grand Rapids..	Grand Rapids...	1.0340	2.9	11.72	8.82	.....	Skimmed.
Nov. 27	H. Bergelein, Appleton.....	Appleton	1.0216	2.9	8.49	5.59	32.3	Watered.
Dec. 2	H. Bergelein, Appleton.....	Appleton	1.0225	3.0	8.87	5.87	34.3	Watered.
Dec. 10	T. D. Byron, Cuba City.....	Cuba City.....	1.0256	4.0	10.75	6.75	36.9	Watered.
Dec. 16	David Van Buren, Oshkosh.....	Oshkosh	1.0281	3.6	11.50	7.90	38.4	Watered.

Dec. 16	David Van Buren, Oshkosh.....	Oshkosh	1.0232	3.2	9.87	6.67	35.1	Watered.
Dec. 17	Louise Hoffman, Lancaster.....	Lancaster	1.0355	1.9	11.15	9.25	.....	Skimmed.
1919								
Jan. 17	L. Dexheimer, Sheboygan.....	Sheboygan	1.0263	3.15	10.25	7.10	35.2	Watered.
Jan. 31	J. N. Reuter, Prairie du Sac.....	Prairie du Sac..	1.0297	3.35	11.61	8.26	39.9	Slightly below standard in solids not fat as the cows give it.
Feb. 21	Thomas Sorensen, Elkhorn.....	Elkhorn	1.0276	3.9	11.73	7.83	38.6	Watered.
Mar. 5	F. Miller, Brodhead.....	Brodhead	1.0301	4.35	12.55	8.20	39.0	Slightly below standard in solids not fat.
Mar. 5	John Sauter, Brodhead.....	Brodhead	1.0311	3.15	11.47	8.32	39.8	Slightly below standard in solids not fat.
Mar. 5	Frank Martin, Lake Geneva.....	Lake Geneva....	1.0279	4.1	11.64	7.54	37.8	Watered.
Mar. 12	H. T. Carey, Argyle.....	Argyle	1.0303	2.95	11.10	8.15	39.4	Below standard in fat and solids not fat.
Mar. 12	John Reed, Argyle.....	Argyle	1.0297	3.20	11.27	8.07	39.7	Below standard in fat.
Mar. 13	Fred Larson, Cumberland.....	Cumberland	1.0275	2.85	11.11	7.26	37.9	Watered.
Mar. 20	James Cranston, Beloit.....	Beloit	1.0315	3.40	11.69	8.29	38.7	Slightly watered.
Mar. 27	H. P. Edler, Sheboygan Falls....	Sheboygan Falls	1.0296	2.65	10.31	7.80	39.8	Below standard in fat and solids not fat.
April 1	Sheboygan Dairy Products Co., Clintonville.	Clintonville	1.030	3.00	11.09	8.09	39.7	Below standard in solids not fat.
April 2	H. Wauless, Sparta.....	Sparta	1.0350	2.60	11.87	9.27	42.4	Skimmed.
May 7	Mrs. Wm. Frenz, Thiensville.....	Milwaukee .....	.....	.....	.....	.....	35.2	Sour and unfit for complete analysis. Immersion refractometer reading of whey shows watering.
May 14	E. Nettleton, Stevens Point.....	Stevens Point...	1.035	3.10	12.29	9.19	42.0	Skimmed.

Milk—Submitted Samples

Date	Submitted by	Sp. G. 15.5°	Per cent milk fat	Per cent total solids	Per cent solids not fat	I. R. of whey at 20° C.
1918						
July 3	Wm. Chunot, Wauzeka.....	.....	3.95	.....	.....	.....
July 10	A. J. Miller, Antigo.....	.....	4.05	.....	.....	.....
July 10	Lester Watson, Wauzeka.....	.....	3.4	.....	.....	.....
July 11	Ed Babeck, Madison.....	1.0323	3.72	12.36	8.64	41.9
July 11	Ed Babeck, Madison.....	1.0322	2.55	11.11	8.56	.....
July 11	Ed Babeck, Madison.....	1.0322	3.10	.....	.....	.....
July 11	Ed Babeck, Madison.....	1.0323	3.70	12.42	8.77	41.8
July 12	Ed Babeck, Madison.....	1.0326	3.4	12.25	8.85	42.0
July 17	Wendell Scott, Jr., Green Bay.....	.....	3.25	.....	.....	.....

DAIRY PRODUCTS—Continued
Milk—Submitted Samples—Continued

Date	Submitted by	Sp. G. 15.5°	Per cent milk fat	Per cent total solids	Per cent solids not fat	I. R. of whey at 20° C.
1918			3.3			
July 25	Luick Ice Cream Co., Milwaukee.....	1.0260	5.87	13.57	7.67	
July 31	J. O'Connor, Hartford.....	1.0270	5.82	12.73	7.91	
July 31	Jeremiah O'Connor, Hartford.....	1.0305	7.17	16.22	9.05	
July 31	Jeremiah O'Connor, Hartford.....	1.0285	4.2	12.16	7.96	
July 31	J. O'Connor, Hartford.....	1.0280	3.97	11.76	7.79	
July 31	J. O'Connor, Hartford.....	1.0299	3.82	12.059	8.239	
July 31	J. O'Connor, Hartford.....	1.0320	4.0	12.8	8.8	
July 31	J. O'Connor, Hartford.....	1.0270	6.63	14.64	8.01	
July 31	J. O'Connor, Hartford.....	1.0310	4.05	12.61	8.56	
July 31	J. O'Connor, Hartford.....	1.0266	2.9	10.72	7.82	38.0
Aug. 4	Fred C. Mansfield, Johnson Creek.....	1.0331	2.90	11.72	8.82	
Aug. 4	Fred C. Mansfield, Johnson Creek.....	1.0331	2.9	9.76	6.86	36.55
Aug. 8	Fred C. Mansfield Co., Johnson Creek.....	1.0244	2.5	10.77	8.27	40.9
Aug. 9	Fred C. Mansfield Co., Johnson Creek.....	1.0303	2.12			
Aug. 12	Indiana Condensed Milk Co., Albany.....					40.85
Aug. 13	A. H. Walter, Lodi.....	1.0330	2.4	11.03	8.63	41.7
Aug. 14	Fred C. Mansfield Co., Johnson Creek.....	1.0305	3.00	11.23	8.23	41.1
Aug. 14	Fred C. Mansfield Co., Johnson Creek.....		3.72			
Aug. 15	W. G. Crawford, Madison.....		3.35			39.7
Sept. 1	Wm. E. Schratte, Stanley.....	1.0291	3.23	11.22	7.97	
Sept. 9	Fred C. Mansfield Co., Johnson Creek.....	1.0326	2.97	11.83	8.86	
Sept. 9	Fred C. Mansfield Co., Johnson Creek.....	1.0207	2.0	7.67	5.67	
Sept. 13	Fred C. Mansfield Co., Johnson Creek.....		3.7			
Sept. 16	R. J. Rowell, Madison.....	1.0279	4.45	12.31	7.86	
Sept. 16	J. O'Connor, Hartford.....	1.0292	4.17	12.30	8.13	
Sept. 16	J. O'Connor, Hartford.....	1.0271	4.32	11.95	7.639	
Sept. 16	J. O'Connor, Hartford.....	1.0275	5.4	13.355	7.955	
Sept. 16	J. O'Connor, Hartford.....	1.0328	3.85	12.82	8.97	
Sept. 16	J. O'Connor, Hartford.....	1.0310	2.65	11.13	8.48	
Sept. 16	J. O'Connor, Hartford.....	1.0297	4.75	13.125	8.37	
Sept. 16	J. O'Connor, Hartford.....		3.6			
Sept. 20	Eugene Coisman, Lena.....		3.4			
Sept. 20	Eugene Coisman, Lena.....					

Oct. 11	Tom Niland, Wauzeka.....		5.60			
Oct. 11	W. J. Crawford, Madison.....		3.40			
Oct. 11	W. J. Crawford, Madison.....		4.00			
Oct. 12	Dietrich Cheese Factory, Black Creek.....		2.4			
Oct. 29	E. H. Julius, Neenah.....	1.0333	3.6	12.34	8.74	
Oct. 29	E. H. Julius, Neenah.....	1.0337	3.6	12.68	9.08	
Nov. 6	Luick Ice Cream Co., Milwaukee.....		3.75			
Nov. 8	Fred Kueng, Monroe.....		3.6			
Nov. 12	J. J. Tesar, Wauzeka.....		3.65			
Nov. 18	Luick Ice Cream Co., Milwaukee.....		3.74			
Nov. 23	M. E. Renolds, Delavan.....		2.9			
Dec. 13	C. P. Baird, Fox Lake.....		4.5			
Dec. 14	Roach & Seeber, Waterloo.....		3.15	11.76	8.61	39.6
Dec. 14	Roach & Seeber, Waterloo.....		3.15	11.39	8.24	39.9
Dec. 23	Max Roeber, Delavan.....		3.10			
1919						
Jan. 3	F. Lubinski, Seymour.....	1.0337	3.50			
Jan. 3	F. Lubinski, Seymour.....	1.0329	3.20			
Jan. 14	Wm. Luick, Milwaukee.....		3.7			
Jan. 20	Wm. Luick, Milwaukee.....	1.0338	0.27	9.20		40.4
Feb. 3	A. F. Guelzow, Portage.....		3.75			
Feb. 6	N. G. Crawford, Madison.....		3.60			
Feb. 6	N. G. Crawford, Madison.....		3.50			40.3
Feb. 21	P. Hilger, Waunakee.....		2.65			
Feb. 25	Jas. & F. Regan, Hollandale.....		3.25			41.4
Feb. 26	Grace Milton, Hartford.....					40.3
Mar. 3	City of Ashland.....					40.8
Mar. 3	City of Ashland.....		4.00			
Mar. 10	Evansville Mercantile Association, Evansville.....		3.5			
Mar. 10	G. Hamm, Curtiss.....		4.4			
Mar. 13	O. E. Thym, Pulaski.....		3.5			
Mar. 13	O. E. Thym, Pulaski.....		3.85			
Mar. 13	O. E. Thym, Pulaski.....		3.05			
Mar. 13	O. E. Thym, Pulaski.....		3.75			
Mar. 14	Edw. Ludke, Green Bay.....					39.7
Mar. 22	Jacob Bayens, Sheboygan.....		3.70			40.2
Mar. 22	Jacob Bayens, Sheboygan.....					40.4
Mar. 22	Jacob Bayens, Sheboygan.....					41.2
Mar. 22	Jacob Bayens, Sheboygan.....					43.5
Mar. 22	Jacob Bayens, Sheboygan.....					40.4
Mar. 22	Jacob Bayens, Sheboygan.....					
Mar. 25	James C. Taylor, Gilman.....		3.0	11.59	8.59	
Mar. 26	C. Toeblerman, Monroe.....		3.05			40.8
Mar. 26	C. Toeblerman, Monroe.....		3.15			40.25

DAIRY PRODUCTS—Continued
Milk—Submitted Samples—Continued

Date	Submitted by	Sp. G. 15.5°	Per cent milk fat	Per cent total solids	Per cent solids not fat	I. R. of whey at 20° C.
1919						
Mar. 26	C. Toeblerman, Monroe.....		3.3			41.4
Mar. 26	C. Toeblerman, Monroe.....		3.3			39.3
Mar. 26	C. Toeblerman, Monroe.....		3.5			41.4
Mar. 26	C. Toeblerman, Monroe.....					40.35
Mar. 26	C. Toeblerman, Monroe.....		3.4			41.3
Mar. 26	C. Toeblerman, Monroe.....		3.45			40.65
April 2	Eugene Berger, Oconomowoc.....		4.00			
April 2	C. Walter, Chippewa Falls.....					42.3
April 2	C. Walter, Chippewa Falls.....					42.4
April 17	Otto Wollner & Co., Hartford.....					40.1
April 17	Otto Wollner & Co., Hartford.....					40.3
April 18	Hugo Brehm, Colby.....		2.3			
April 18	Hugo Brehm, Colby.....		1.9			
April 18	Hugo Brehm, Colby.....		3.0			
April 22	Otto Mellenthin, Spencer.....					41.4
May 6	Fred Pukall, Birnamwood.....		3.8			
May 6	Louis Rubens, Casco.....		2.35			39.7
May 6	Louis Rubens, Casco.....		2.85			
May 6	Fred C. Mansfield Co., Johnson Creek.....	1.0325	3.10	11.72	8.62	
May 6	Fred C. Mansfield Co., Johnson Creek.....	1.0282	3.30	10.97	7.67	39.5
May 6	Fred C. Mansfield Co., Johnson Creek.....	1.0321	3.95	12.52	8.58	
May 6	Fred C. Mansfield Co., Johnson Creek.....	1.032	3.45	11.92	8.47	
May 6	Fred C. Mansfield Co., Johnson Creek.....	1.030	2.9	10.62	7.72	
May 6	Fred C. Mansfield Co., Johnson Creek.....	1.030	3.0	10.77	7.77	
May 6	Fred C. Mansfield Co., Johnson Creek.....	1.0285	2.65	10.19	7.54	38.0
May 6	Fred C. Mansfield Co., Johnson Creek.....	1.0285	2.60	9.97	7.37	37.0
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon.....		3.57			
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon.....		3.45			
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon.....		3.57			
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon.....		3.57			
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon.....		3.52			
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon.....		3.52			
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon.....		3.57			

May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.55			
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.57			
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.60			
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.55			
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.57			
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.60			
May 15	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.60			
May 27	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.60			
May 27	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.45			
May 27	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.50			
May 27	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.50			
May 27	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.45			
May 27	F. B. Barrows, Libby, McNeil & Libby Co., Sharon	3.90			
May 27	Thomas A. Rohde, Timothy	3.90			
June 4	Libby, McNeil & Libby Co., Sharon	3.52			
June 4	Libby, McNeil & Libby Co., Sharon	3.50			
June 17	Frank Shumate, Bagley	3.65			
June 26	Wisconsin Butter & Cheese Co., Elkhorn	2.95	10.92	7.97	38.8

Miscellaneous Dairy Products—Submitted Samples

Date	Kind	Submitted by	Remarks *
1918			Per cent
Aug. 20	Condensed milk	Harry Kleuter, Madison	Solids 7.13 Ash 1.75 Protein 7.18 Lactose 14.00 Fat 7.86 Sucrose 42.42
Aug. 20	Condensed milk	Harry Kleuter, Madison	Solids 72.14 Ash 1.76 Protein 7.05 Lactose 14.00 Fat 8.16 Sucrose 41.17
Nov. 1	Evaporated milk	Oatman Condensed Milk Co., Dundee, Ill.	Total solids 26.88
Nov. 1	Evaporated milk	Oatman Condensed Milk Co., Dundee, Ill.	Total solids 26.78

Dairy Products—Continued
Miscellaneous Dairy Products—Submitted Samples

Date	Kind	Submitted by	Remarks
1918			
Nov. 1	Evaporated milk.....	Oatman Condensed Milk Co., Dundee, Ill.....	Total solids 26.61
Nov. 1	Evaporated milk.....	Oatman Condensed Milk Co., Dundee, Ill.....	Total solids 26.33
Nov. 1	Evaporated milk.....	Oatman Condensed Milk Co., Dundee, Ill.....	Total solids 26.13
Nov. 1	Evaporated milk.....	Oatman Condensed Milk Co., Dundee, Ill.....	Total solids 26.17
Nov. 6	Skimmed milk.....	Luick Ice Cream Co., Milwaukee.....	Fat 0.26
Nov. 11	Human milk.....	A. W. Cooley, Madison.....	Water 88.23
			Protein 1.53
			Fat 2.81
			Sugar 7.22
			Ash ..... .21
			Fat 0.39
Nov. 18	Skimmed milk.....	Luick Ice Cream Co., Milwaukee.....	
1919			
Jan. 15	Skimmed milk.....	Luick Ice Cream Co., Milwaukee.....	Fat 0.13
Mar. 6	Human milk.....	Dr. A. M. McKellar, Blanchardville.....	Fat ..... .84
			Total solids 9.91
			Ash 0.27
			Protein 1.60
			Fat 33.38
			Total solids 97.43
			Moisture 2.57
May 27	Milk powder.....	Geo. J. Weigle, Madison.....	

DRIED FRUITS—Bleached with Sulphur Dioxide

Date	Kind	Bought of	Date	Kind	Bought of
1918					
Sept. 13	Bleached raisins.....	Hegen & Waller, Osseo.	1918		
Oct. 1	Evaporated apples.....	Chas. Biendona, Mattoon.	Oct. 17	Silver prunes.....	Miscoll & Gorman, Mosine.
Oct. 1	Raisins.....	Mattoon Merc. Co., Mattoon.	Oct. 22	Bleached raisins.....	Wm. Rabenewish & Son, Park Falls.
Oct. 2	Dried apples.....	Julius Netzel, Crandon.	1919		
			April 22	Dried peaches.....	Alma Center Coop. Co., Alma Ctr.

EGG SUBSTITUTES

Date	Kind	Bought of	Manufacturer or Jobber	Remarks
1918 Sept. 19	Eggoe	S. D. Nelson, Rhinelander.....	The Eggoe Co., Marshalltown, Ia.	Analysis shows this product to be composed of about 85% of corn starch with about 7½% of protein. Artificially colored with a coal tar dye to make it appear better or of greater value than it really is.
Sept. 19	Eggine	S. D. Nelson, Rhinelander.....	Chas. T. Morrissey & Co., Chicago	Qualitative tests show this product to be a mixture composed of about 60% corn starch, 23% of protein, most likely casein, artificial color and leavening agents. Adulterated with artificial color to make it appear better or of greater value. Misbranded. Label bears a false and misleading statement.
Dec. 6	Sa-Van	F. C. Fuller, Eland.....	The Nacama Co., Chicago.....	Qualitative tests show this product to be a mixture composed largely of corn flour or corn starch with a small percentage of protein and leavening agents. Misbranded. Label states package may be used in place of 3 dozen eggs, which is false and misleading.
Dec. 17	IXL Egg Saver.....	Werich Bros., Baraboo.....	W. C. Laboratories, Chicago.....	Composed largely of starch. Misbranded. Not an egg saver or egg substitute.
Dec. 17	Magic Egg Saver.....	H. Potterville, Baraboo.....	Sherer-Gillett Co., Chicago.....	Composed largely of starch. Misbranded. Not an egg saver or egg substitute.
Dec. 20	IXL Egg Saver.....	C. H. Melde, Bayfield.....	W. C. Laboratories, Chicago.....	Composed largely of starch. Misbranded. Not an egg saver or egg substitute.
Dec. 20	Eggless	D. C. Marotta, Spooner.....	American Food Products Co., Minneapolis	Moisture 4.20%, protein 3.80%, starch (corn and rice) 40.55%, fat 0.31%, sugar (reducing) 0.67%. Leavening agents, sodium bicarbonate, tartaric acid or tartrates, ash 20.40%. Artificial color tumeric. Adulterated with artificial color to make it appear better or of greater value.

Egg Substitutes—Continued

Date	Kind	Bought of	Manufacturer or Jobber	Remarks
1918 Dec. 21	Egg-Saver	Wm. H. Bubolz, Green Bay.....	Scherer-Gillett Co., Chicago.....	Composed largely of starch. Not an egg powder. Misbranded. Not an egg saver or egg substitute.
Dec. 21	Eg-zaet.....	Grand Union Tea Co., Green Bay..	Godfrey & Sons, Milwaukee.....	Qualitative tests show this product to be a mixture composed largely of corn starch, sugar and leavening agents with gelatin added. Not an egg powder. Adulterated—made to appear better or of greater value by use of artificial color. Misbranded—true character and composition not stated.
Dec. 21	Sa-Van-Eg	H. J. Platten, Green Bay.....	The Nacama Co., Chicago.....	Qualitative tests show this product to be a mixture composed largely of corn flour or corn starch, with a small percentage of protein and leavening agents. Not an egg powder. Misbranded—label states package may be used in place of 3 dozen eggs, which is false and misleading.
Dec. 21	Egg-Sub	H. DeTennis, Green Bay.....	J. West & Co., Chicago.....	Not an egg powder—adulterated.
Dec. 21	Egg-less	Wm. F. Bubolz, Green Bay.....	American Food Products Co., Minneapolis.	Qualitative tests show this product to be about 4% of protein, most likely some skim milk, a large percentage of leavening agents and artificially colored. Not an egg powder. Adulterated with artificial color to make it appear better or of greater value. Undoubtedly everything accomplished with egg-less could be accomplished with baking powder.
Dec. 13	Eg-zaet.....	M. A. Droth, Park Falls.....	Sunbeam Products Co., Milwaukee	Qualitative tests show this product to be a mixture composed largely of corn starch, sugar and leavening agents with gelatin. Adulterated—made to appear better or of greater value by use of artificial color. Misbranded—true character and composition not stated.

Dec. 23	Eg-zact	Wm. Carroll, Eau Claire.....	Sunbeam Products Co., Milwaukee	Moisture 7.63%, ash 9.48%, sugars 5.29%, fat .58%, protein 6.46%, starch 61.58%. Artificial color tartrazine present. Adulterated. Made to appear better or of greater value by use of artificial color. Misbranded—true character and composition not stated.
Dec. 23	Eg-zact	Allen Hansen, Eau Claire.....	Sunbeam Products Co., Milwaukee	Moisture 7.57%, ash 9.67%, sugars 5.03%, fat .53%, protein 6.32%, starch 62.08%. Artificial color tartrazine present. Adulterated. Made to appear better or of greater value by use of artificial color. Misbranded—true character and composition not stated.
Dec. 23	Eg-zact	J. A. Hepburn, Eau Claire.....	Sunbeam Products Co., Milwaukee	Qualitative tests show this product to be a mixture composed largely of corn starch, sugar and leavening agents, with gelatin added. Adulterated. Made to appear better or of greater value by use of artificial color. Misbranded—true character and composition not stated.
Dec. 23	Egg-Oline	National Grocery No. 3, Eau Claire	Sunbeam Products Co., Milwaukee	Same as above.
Dec. 23	Egg-Oline	E. Krueger & Son, Eau Claire.....	Sunbeam Products Co., Milwaukee	Same as above.
Dec. 23	Sa-Van-Eg	O. P. Jaeger, Eau Claire.....	The Nacama Co., Chicago.....	Qualitative tests show this product to be a mixture composed largely of corn flour or corn starch with a small percentage of protein and leavening agents. Misbranded—label states package may be used in place of 3 dozen eggs, which is false and misleading.
Dec. 23	Sa-Van-Eg	C. Denessen, Green Bay.....	The Nacama Co., Chicago.....	Qualitative tests show this product to be a mixture composed largely of corn flour or corn starch with a small percentage of protein and leavening agents. Not an egg powder. Misbranded—label states package may be used in place of 3 dozen eggs, which is false and misleading.
Dec. 23	Egg-O-Save	Hans Peterson, Eau Claire.....	Foster Bros., Eau Claire.....	Qualitative tests show this product to be a mixture composed largely of corn starch, protein and leavening agents. Artificially colored. Adulterated with artificial color to make it appear better or of greater value.

Egg Substitutes—Continued

Date	Kind	Bought of	Manufacturer or Jobber	Remarks
1918 Dec. 23	Egg-O-Save	Geo. Foster, Eau Claire.....	Foster Bros., Eau Claire.....	Moisture 5.85%, protein, 7.77%, starch (corn) 63.46%, fat 0.53%, ash 13.50%, sugar (reducing) 1.88%, leavening agents—sodium bicarbonate, calcium acid phosphate. Artificial color tartrazine. Adulterated with artificial color to make it appear better or of greater value. Misbranded—used fraudulent advertisements to sell this product.
Dec. 23	Egg-O-Save	Myher Bros., Eau Claire.....	Foster Bros., Eau Claire.....	Qualitative tests show this product to be a mixture composed largely of corn starch, protein and leavening agents, artificially colored. Adulterated with artificial color to make it appear better or of greater value. Misbranded—used fraudulent advertisements to sell this product.
Dec. 23	Marvel Powder	Allen Hansen, Eau Claire.....	Chas. T. Morrissey & Co., Chicago	Qualitative tests show this product to be a mixture of about 60% corn starch, 23% protein, most likely casein, artificial color and leavening agents. Adulterated with artificial color to make it appear better or of greater value. Misbranded—label bears a false and misleading statement.
Dec. 23	Eggine	Wm. Carroll, Eau Claire.....	Chas. T. Morrissey & Co., Chicago	Same as above.
Dec. 23	Marvel Powder	E. Krueger & Son, Eau Claire.....	Chas. T. Morrissey & Co., Chicago	Same as above.
Dec. 23	Egg-Sub	F. E. Wicke, Fort Atkinson.....	J. S. Ziegler Company, Chicago...	Moisture 5.79%, ash 3.35%, protein 2.23%, sugar .97% (lactose), sugar 4.30% (sucrose), starch 81.02%, fat 0.49% (crude), fat 0.41% (purified). Artificial color present. Mixture of starch and leavening agents and skim milk powder. Adulterated with artificial color.
Dec. 23	Eggless	Jacobson Merc. Co., Rice Lake.....	American Food Products Co., Minneapolis.	Moisture 4.38%, protein 4.56%, starch (corn and rice) 41.10%, fat 0.93%, sugar (reducing) 1.04%, ash 20.58%, leavening agents, sodium bicarbonate, tartaric acid or tartrates. Artificial color—none. Fraudulent advertising used in connection with sale of this product.

Dec. 24	Sa-Van.....	Tomah Cash Merc. Co., Tomah...	The Nacama Co., Chicago.....
Dec. 24	Eggless	F. H. Robinson, Tomah.....	American Food Products Co., Minneapolis.
Dec. 26	Eggless	Smales Dairy Store, La Crosse....	American Food Products Co., Minneapolis.
Dec. 26	Eggitt	Lee Bros., De Pere.....	The Lange Co., De Pere.....
Dec. 26	Magic Egg Saver.....	F. J. Brieske, La Crosse.....	New Method Co., Chicago.....
Dec. 26	Eggoe	Weber Bros., Marshallfield.....	The Eggoe Company, Marshalltown, Iowa.
Dec. 26	Sa-Van-Eg.....	Smales Dairy Store, La Crosse....	The Nacama Co., Chicago.....
Dec. 26	Sa-Van	J. M. Bienfang, Jefferson.....	The Nacama Co., Chicago.....
Dec. 26	Sa-Van-Eg.....	R. H. Hoefle, La Crosse.....	The Nacama Co., Chicago.....

Qualitative tests show this product to be a mixture composed largely of corn flour or corn starch with a small percentage of protein and leavening agents. Misbranded—label states package may be used in place of 3 dozen eggs, which is false and misleading.

Qualitative tests show this product to be a mixture of corn and rice starch with about 4% of protein, most likely some skim milk, a large percentage of leavening agents and artificially colored. Adulterated with artificial color to make it appear better or of greater value. Undoubtedly everything accomplished with egg-less could be accomplished with baking powder.

Same as above.

Moisture 7.00%, starch (corn) large per cent, protein 13.63%, fat 0.17%, ash 0.70%, artificial color—none, leavening agents—none, sugar (reducing)—trace. Misbranded—not labeled to show its true character and composition. Label states package may be used in place of 7 dozen eggs, which is false and misleading.

Composed largely of starch. Misbranded—not an egg saver or egg substitute. Analysis shows this product to be composed of about 85% of corn starch and about 7½% of protein. Artificially colored with a coal tar dye to make it appear better or of greater value than it really is.

Qualitative tests show this product to be a mixture composed largely of corn flour or corn starch with a small percentage of protein and leavening agents. Misbranded—label states package may be used in place of 3 dozen eggs, which is false and misleading.

Same as above.
Same as above.

Egg Substitutes—Continued

Date	Kind	Bought of	Manufacturer or Jobber	Remarks
1918 Dec. 26	Egg-Sub	Imperial Coffee Co., La Crosse.....		
Dec. 26	Eggnate.....	F. Hildebrandt, Marshfield.....	C. L. Hamilton, Grand Rapids, Wis.	Moisture 5.00%, ash 8.53%, alum and sodium carbonate and phosphates, protein 1.40%, sugar 4.84 (sucrose), starch 81.85%, fat 0.14%. Artificial color present. Mixture of starch, leavening agents and skim milk powder. Adulterated with artificial color.
Dec. 26	Eggine	Loek & Wisch, Fort Atkinson.....	Chas. T. Morrissey & Co., Chicago	A mixture composed largely of corn starch, skim milk powder and leavening agents, artificially colored. Misbranded. Directions state, "Use as 3 dozen eggs," indicating that the package is equivalent to 3 dozen eggs. Adulterated with artificial color to make it appear better or of greater value.
Dec. 26	Eggine	J. M. Bienfang, Jefferson.....	Chas. T. Morrissey & Co., Chicago	Qualitative tests show this product to be a mixture of about 60% corn starch, 23% protein, most likely casein, artificial color and leavening agents. Adulterated with artificial color to make it appear better or of greater value. Misbranded—label bears a false and misleading statement.
Dec. 27	Eggless	Jos. Gilberg, La Crosse.....	American Food Products Co., Minneapolis.	Same as above.
Dec. 27	Eg-zact.....	S. Felbel, Fort Atkinson.....	Sunbeam Products Co., Milwaukee	Qualitative tests show this product to be a mixture of corn and rice starch with about 4% of protein, most likely some skim milk, a large percentage of leavening agents, and artificially colored. Adulterated with artificial color to make it appear better or of greater value. Undoubtedly everything accomplished with eggless could be accomplished with baking powder.
				Qualitative tests show this product to be a mixture composed largely of corn starch, sugar and leavening agents, with gelatin added. Adulterated—made to appear better or of greater value by the use of artificial color. Misbranded—true character and composition not stated.

Dec. 27	Sa-Van-Eg	John H. Tietz, La Crosse.....	The Nacama Company, Chicago..	Qualitative tests show this product to be a mixture composed largely of corn flour or corn starch with a small percentage of protein and leavening agents. Misbranded—label states package may be used in place of 3 dozen eggs, which is false and misleading.
Dec. 27	Eg-U-Sav	Leonard Ott, Fort Atkinson.....	Wm. H. Thompson, Mazomanie...	Qualitative tests show this product to be a mixture composed largely of corn starch, protein and artificial color. Misbranded—package bears a false and misleading statement.
Dec. 27	Eggine	Leonard Ott, Fort Atkinson.....	Chas. T. Morrissey & Co., Chicago	Moisture 6.16%, ash 6.43%, nitrogen 3.65%, protein 22.81%, sucrose 0.33%, starch 58.16%. Color, artificial. Leavening agents present. Adulterated with artificial color to make it appear better or of greater value. Misbranded—label bears a false and misleading statement.
Dec. 28	Egona	Schaefer Bros., Appleton.....	C. C. Knell Co., Milwaukee.....	Misbranded. Label states replaces eggs, which is false and misleading.
Dec. 28	Eggoe	O. J. Ruhsam, Appleton.....	The Eggoe Company, Marshalltown, Iowa.	Analysis shows this product to be composed of about 85% corn starch with about 7½% of protein. Artificially colored with coal tar dye to make it appear better or of greater value than it really is.
Dec. 28	Sa-Van-Eg	R. L. Herrman, Appleton.....	The Nacama Co., Chicago.....	Qualitative tests show this product to be a mixture composed largely of corn flour or corn starch, with a small percentage of protein and leavening agents. Misbranded—label states package may be used in place of 3 dozen eggs, which is false and misleading.
Dec. 28	Eggnit	A. J. Herrman, Appleton.....	C. H. Stuart & Co., Newark, N. Y.	Qualitative tests show it to be composed largely of corn starch with leavening agents. Artificially colored. Adulterated—artificially colored to make it appear better or of greater value.
Dec. 28	Eggine	Sam Huffman, Richland Center...	Chas. T. Morrissey & Co., Chicago	Qualitative tests show this product to be a mixture of about 60% corn starch, 23% of protein, most likely casein, artificial color, and leavening agents. Adulterated with artificial color to make it appear better or of greater value. Misbranded—label bears a false and misleading statement.

Egg Substitutes—Continued

Date	Kind	Bought of	Manufacturer or Jobber	Remarks
1918				
Dec. 25	Eggine	O. W. Rogge, Appleton.....	Chas. T. Morrissey & Co., Chicago	Same as above.
Dec. 30	Eg-Zact	Economy Tea & Coffee Co., Milwaukee.	Sunbeam Products Co., Milwaukee.	Moisture 4.23%, starch (corn and potato) 58.00%, protein (gelatin) 6.07%, fat 0.31%, sucrose 10.54%, reducing sugars 0.96%, sodium chloride 5.51%, calcium acid phosphate 4.14%, sodium bicarbonate present. Artificial color tartrazine present. Adulterated—made to appear better or of greater value by use of artificial color. Misbranded—true character and composition not stated.
Dec. 30	Eggette	Economy Tea & Butter Co., Milwaukee.	Bestever Products Co., Chicago...	Analysis shows this product to be a mixture of corn starch and skim milk, milk powder, artificial colored. Misbranded—bears a false and misleading statement. Does not save eggs. Adulterated with artificial color to make it appear better or of greater value.
1919				
Jan. 2	Eggnate	W. A. Cooper, Berlin.....	C. L. Hamilton & Co., Grand Rapids, Wis.	Moisture 5.50%, protein 11.93%, starch (corn) 56.63%, fat 0.42%, sugar (lactose) 12.90%, leavening agents—sodium bicarbonate, calcium acid phosphate, artificial color tartrazine. Adulterated with artificial color to make it appear better or of greater value. Misbranded—used fraudulent advertising to sell this product.
Jan. 2	Eggoe	Frank Sroda, Stevens Point.....	Copps Grocery Co., Stevens Point.	Moisture 7.25%, protein 7.64%, ash 0.60%, starch 84.58%, reducing sugars, trace present, not sufficient for analysis. Coloring matter identified as tartrazine.
Jan. 2	Eggoe	J. L. Jensen, Stevens Point.....	Copps Grocery Co., Stevens Point.	Moisture 7.29%, ash 0.60%, protein 6.69%, starch 85.47%, reducing sugars—trace, not sufficient for analysis. Coloring matter—tartrazine.

Jan. 2	Sa Van.....	A. F. Cujak, Berlin	The Nacama Co., Chicago.....	Qualitative tests show this product to be a mixture composed largely of corn flour or corn starch with a small percentage of protein and leavening agents. Misbranded—label states package may be used in place of 3 dozen eggs, which is false and misleading.
Jan. 3	Egg Saver	F. G. Pierce, Medford.....	Sherer-Gillett Co., Chicago.....	Composed largely of starch. Misbranded—not an egg saver or egg substitute.
Jan. 3	Eg-Zact	J. M. Coulter, Reedsburg.....	Sunbeam Products Co., Milwaukee	Qualitative tests show this product to be a mixture composed largely of corn starch, sugar and leavening agents with gelatin added. Adulterated—made to appear better or of greater value by the use of artificial color. Misbranded—true character and composition not stated.
Jan. 3	Sa-Van-Eg	F. Wittkamp, Milwaukee.....	The Nacama Co., Chicago.....	Qualitative tests show this product to be a mixture composed largely of corn flour or corn starch with a small percentage of protein and leavening agents. Misbranded—label states package may be used in place of 3 dozen eggs, which is false and misleading.
Jan. 3	Sa-Van-Eg	Much & Mallory, Berlin.....	The Nacama Co., Chicago.....	Same as above.
Jan. 3	Eggnate	J. F. Dolliver, Berlin.....	C. L. Hamilton & Co., Grand Rapids, Wis.	A mixture composed largely of corn starch, skim milk powder and leavening agents. Artificially colored. Misbranded. Directions state, "Use as 3 dozen eggs", indicating that the package is equivalent to 3 dozen eggs. Adulterated with artificial color to make it appear better or of greater value.
Jan. 3	Eggnate	W. A. Grotta, Berlin.....	C. L. Hamilton & Co., Grand Rapids, Wis.	Same as above.
Jan. 3	Eggnate	Much & Mallory, Berlin.....	C. L. Hamilton & Co., Grand Rapids, Wis.	Moisture 5.48%, protein 11.45%, starch (corn) 56.98%, fat 0.37%, ash 7.64%, sugar (lactose) 12.84%, leavening agents—sodium bicarbonate, calcium acid phosphate, artificial color—tartrazine. Adulterated with artificial color to make it appear better or of greater value. Misbranded—used fraudulent advertisements to sell this product.

Egg Substitutes—Continued

Date	Kind	Bought of	Manufacturer or Jobber	Remarks
1919 Jan. 3	Eggnate	G. A. Stubbe, Berlin.....	C. L. Hamilton & Co., Grand Rapids, Wis.	Starch (corn) large percentage, artificial color tartrazine. Leavening agents—phosphate, calcium, sodium bicarbonate. Misbranded—directions state, "Use as 3 dozen eggs," indicating that the package is equivalent to 3 dozen eggs. Adulterated with artificial color to make it appear better or of greater value.
Jan. 4	Eg-Zact.....	Everson Grocery Co., Eau Claire..	Sunbeam Products Co., Milwaukee	Qualitative tests show this product to be a mixture composed largely of corn starch, sugar and leavening agents with gelatin added. Adulterated—made to appear better or of greater value by the use of artificial color. Misbranded—true character and composition not stated.
Jan. 4	Eg-Zact.....	Wm. Carroll, Eau Claire.....	Sunbeam Products Co., Milwaukee	Same as above.
Jan. 4	Marvel Powder.....	Ad. Bachman, Eau Claire.....	Chas. T. Morrissey & Co., Chicago	Qualitative tests show this product to be a mixture of about 60% corn starch, 23% of protein, most likely casein, artificial color and leavening agents. Adulterated with artificial color to make it appear better or of greater value. Misbranded—label bears false and misleading statement.
Jan. 6	Eg-Zact.....	Wm. Carroll, Eau Claire.....	Sunbeam Products Co., Milwaukee	Qualitative tests show this product to be a mixture composed largely of corn starch, sugar and leavening agents, with gelatin added. Adulterated—made to appear better or of greater value by the use of artificial color. Misbranded—true character and composition not stated.
Jan. 6	Eg-Zact.....	F. W. Rigli, Eau Claire.....	Sunbeam Products Co., Milwaukee	Same as above.
Jan. 6	Eg-Zact.....	Geo. J. Neher, Eau Claire.....	Sunbeam Products Co., Milwaukee	Same as above.
Jan. 6	Eg-Zact.....	Jos. Sokup, Chippewa Falls.....	Foster Bros. Co., Eau Claire.....	Qualitative tests show this product to be a mixture composed largely of corn starch, protein and leavening agents, artificially colored. Adulterated with artificial color to make it appear better or of greater value. Misbranded—used fraudulent advertisements to sell this product.

Jan. 6	Egg-O-Save.....	C. Nelson Estate, Eau Claire.....	Foster Bros. Co., Eau Claire.....	Same as above. Moisture 5.60%, protein 15.87%, starch (corn) 56.07%, fat 0.86%, ash 10.30%, sugar (reducing) 3.75%, leavening agents: sodium bicarbonate, calcium acid phosphat; artificial color, tartrazine. Adulterated with artificial color to make it appear better or of greater value. Misbranded—used fraudulent advertisements to sell this product.
Jan. 6	Egg-O-Save.....	National Grocery Co. No. 4, Eau Claire.	Foster Bros. Co., Eau Claire.....	
Jan. 6	Marvel Powder.....	Geo. J. Neher, Eau Claire.....	Chas. T. Morrissey & Co., Chicago	Qualitative tests show this product to be a mixture of about 60% corn starch, 23% of protein, most likely casein, artificial color and leavening agents. Adulterated with artificial color to make it appear better or of greater value. Misbranded—label bears a false and misleading statement.
Jan. 6	Eg-Zact.....	J. E. Bagley, Berlin.....	Sunbeam Products Co., Milwaukee	Qualitative tests show this product to be a mixture composed largely of corn starch, sugar and leavening agents with gelatin added. Adulterated—made to appear better or of greater value by the use of artificial color. Misbranded—true character and composition not stated.
Jan. 10	IXL Egg Saver.....	Hanlon Bros., Racine.....	W. C. Laboratories, Chicago.....	Composed largely of starch. Misbranded—not an egg saver or egg substitute.
Jan. 15	Magic Egg Saver.....	A. Brooks, Kenosha.....	Sherer-Gillett Co., Chicago.....	Same as above.
Jan. 19	Egg-O-Save	*Eau Claire Grocery Co., Eau Claire	Foster Bros. Co., Eau Claire.....	Qualitative tests show this product to be a mixture composed largely of corn starch, protein and leavening agents, artificially colored. Adulterated with artificial color to make it appear better or of greater value. Misbranded—used fraudulent advertisements to sell this product.
Jan. 21	Eggoe	Giebmk Bros., Waupun.....	The Eggoe Company, Marshalltown, Iowa.	Analysis shows this product to be composed of about 85% of corn starch with about 7½% of protein. Artificially colored with a coal tar dye to make it appear better or of greater value than it really is.

Egg Substitutes—Continued

Date	Kind	Bought of	Manufacturer or Jobber	Remarks
1919 Jan. 27	Sa-Van-Eg	Chas. Kranich, Jr., Waukesha.....	.....	Qualitative tests show this product to be a mixture composed largely of corn flour or corn starch with a small percentage of protein and leavening agents. Misbranded—label states package may be used in place of 3 dozen eggs, which is false and misleading.
Jan. 28	Egg-O-Save	Robert Steinbring, Menomonie.....	Foster Bros. Co., Eau Claire.....	Qualitative tests show this product to be a mixture composed largely of corn starch, protein and leavening agents, artificially colored. Adulterated with artificial color to make it appear better or of greater value. Misbranded—used fraudulent advertisements to sell this product.
Jan. 30	Eggo.....	*Fischer's Pharmacy, Plymouth.....	.....	Moisture 9.58%, corn starch 63.49%, casein 11.00%, fat—trace. Analysis shows this to be a mixture of corn starch and skim milk powder artificially colored.
Jan. 30	Eggette	*George J. Weigle, Dairy and Food Commissioner, Madison.	.....	Moisture 9.21%, corn starch 56.12%, protein 26.1%, fat 0.57%, lactose—not determined. Ash—not determined. Analysis shows this product to be a mixture of corn starch and skim milk powder artificially colored.
Mar. 10	Eggnate	H. F. Looek, Grand Rapids.....	C. H. Stuart & Co., Newark, N. Y.	A mixture composed largely of corn starch, skim milk powder and leavening agents. Misbranded—directions state, "Use as 3 dozen eggs", indicating that the package is equivalent to 3 dozen eggs. Adulterated with artificial color to make it appear better or of greater value.
Mar. 10	Eggnate	Johnson & Hill, Grand Rapids....	C. H. Stuart & Co., Newark, N. Y.	Same as above.
Mar. 10	Eggnate	Gottschalk & Anderson, Grand Rapids.	C. H. Stuart & Co., Newark, N. Y.	Same as above.

Mar. 18	Eg-Zact	Frank J. Balgie, South Kaukauna.	Sunbeam Products Co., Milwaukee	<p>Qualitative tests show this product to be a mixture composed largely of corn starch, sugar and leavening agents with gelatin added. Adulterated—made to appear better or of greater value by the use of artificial color. Misbranded—true character and composition not stated.</p> <p>Moisture 10.52%, protein 6.50%, starch (corn) 73.88%, fat 0.29%, reducing sugar 1.25%, ash 4.03%, leavening agents: sodium bicarbonate, calcium acid phosphate, alum. Misbranded—label states package may be used in place of 3 dozen eggs, which is false and misleading.</p> <p>Composed largely of starch. Misbranded—not an egg saver or egg substitute.</p> <p>Mixture of starch, leavening agents and skim milk powder. Adulterated with artificial color.</p> <p>Qualitative tests show this product to be a mixture composed largely of corn starch, sugar and leavening agents with gelatin added. Adulterated—made to appear better or of greater value by the use of artificial color. Misbranded—true character and composition not stated.</p> <p>Same as above.</p>
Mar. 24	Sa-Van-Eg	Central Drug Co., Milwaukee.....	The Nacama Co., Chicago.....	
April 7	Egg Saver	Boerner-Kuether Co., Cedarburg...	Sherer-Gillett Co., Chicago.....	
April 9	Egg Sub	J. H. Halverson, Taylor.....	Reliable Mfg. Co., Chicago.....	
April 10	Egoleo	H. Biever, Port Washington.....	Sunbeam Products Co., Milwaukee	
April 10	Eg-Zact.....	R. Stelling & Co., Port Washington	Sunbeam Products Co., Milwaukee	

* Submitted by.

FLAVORS AND FLAVORING EXTRACTS

Date	Kind	Bought of or Submitted by	Manufacturer or Jobber	Remarks
1918				
July 10	Vanilla compound.....	Frank Wholey, Benton.....	Jaeger-Kunnert Co., Dubuque, Ia..	Not standard. Not a vanilla compound.
Sept. 13	Vanilla flavor.....	Purdy Root Beer Co., Portage.....	Purdy Root Beer Co., Portage.....	Not standard. Contains little or no vanilla.
Sept. 13	Lemon flavor.....	Purdy Root Beer Co., Portage.....	Purdy Root Beer Co., Portage.....	Not standard. Contains no oil of lemon.
Sept. 13	Lemon extract.....	Schaettle Bros., Mondovi.....	H. P. Coffee Co., St. Louis.....	Standard.
Oct. 16	Lemon extract.....	Thielman Meat & Gro. Co., Merrill	Price Flavoring Extract Co., Chicago.	Standard.
Oct. 16	Lemon extract.....	Thielman Meat & Gro. Co., Merrill	E. W. Gillett Co., Chicago.....	Standard.
Oct. 29	Lemon extract.....	Micheel & Sandvig, Menomonie....	Foster Bros. Co., Eau Claire.....	Not standard. Contains no oil of lemon.
1919				
Mar. 21	Extract of Vanilla.....	*Coconos Chemical Co., St. Louis..	.....	Not standard. Contains coumarin.
Mar. 28	Lemon extract.....	John Wiric, Loyal.....	Durand & Kasper Co., Chicago....	Misbranded. Contents not given.
April 17	Lemon extract.....	Frank Wrzosek, Stanley.....	Foster Bros. Co., Chippewa Falls..	Not standard. Contains no oil of lemon.
May 9	Rosebud imitation vanilla flavoring.	*S. C. Shannon Co., Appleton.....	.....	Not standard. Not a vanilla compound.
May 9	Rosebud imitation lemon flavoring.	*S. C. Shannon Co., Appleton.....	.....	Passed.

* Submitted by.

FOODS SUSPECTED OF CONTAINING GROUND GLASS

Date	Kind	Submitted by	Remarks
1918 July 8	Cup cake	W. N. Parker, U. S. Dept. of Justice, Madison.	Suspected of containing glass. One large piece of glass found imbedded in the top of the cake—visible to the eye at a glance. Character of cake beneath glass indicated that this piece was placed there after the cake was baked and frosted. No more glass found by decomposition of the cake.
July 18	Flour	Food Administration, Madison.....	Suspected of containing glass. None found. Considerable sand and other rocky material.
July 18	Corn flakes	Food Administration, Madison.....	Suspected of containing glass. None found. Small amount of sand present.
Aug. 19	Peanut butter	Edward A. Babeock, Madison.....	Suspected of containing glass. None found. Considerable sand present.
Oct. 14	Peanut cookies	Geo. J. Weigle, Madison.....	One cookie has on it a small sized pebble, proved to be quartz by the polarizing microscope. Several shiny particles found also proved to be quartz. No glass found. A number of large groups of quartz crystals are present. These are of a size that might be called pebbles.
1919 Feb. 24	Peanut butter	Alice D. Miller, Marshfield.....	Sand present. No glass.

LARD

Date	Bought of or Submitted by	Remarks
1918 Oct. 21	James Esterl, Park Falls.....	Standard.
Oct. 25	Jos. Frkowiez, Mellen.....	Three samples. All found to contain foreign fat.
Oct. 25	Tom Butkowiez, Mellen.....	Standard.
1919 Feb. 18	*Conrad Rajek, Marathon.....	Not standard. Adulterated with beef fat or mutton fat.

* Submitted by.

LINSEED OIL

Linseed Oil—Standard

Date	Bought of or Submitted by	Manufacturer or Jobber
1918		
July 1	American Cooperative Assn., Richland Center.....	Kirs & Beggley Pure Linseed Co., Chicago.
Aug. 26	Chas. Bertram, Marion.....	Southern States Turpentine Co., Cleveland.
Aug. 27	*D. E. Fitzgerald, Racine.....	
Oct. 7	*Opera House Drug Store, Superior.....	
1919		
Mar. 6	*Foster Construction Co., Milwaukee.....	
Mar. 7	*Consolidated Water Power & Paper Co., Grand Rapids.....	
Mar. 28	J. McGonigal, Loyal.....	Midland Linseed Oil Co.
April 11	Geo. Hiltz & Son, Augusta.....	National Linseed Co., Cleveland.
May 15	*A. Schneider, Oshkosh.....	
June 4	*E. J. Goetsch, Watertown.....	
June 5	McCarthy Drug Store, Madison.....	
June 6	Warman & Bruce, Madison.....	
June 6	Fred Klein Co., Madison.....	
June 6	Dresen & Rhodes, Madison.....	
June 6	N. Randlely, Madison.....	
June 6	Julius Heick Co., Madison.....	

* Submitted by.

Linseed Oil—Not Standard

Date	Submitted by	Remarks
1918		
Aug. 8	G. T. Mueller & Son, Columbus (bought of).....	Adulterated with 34.5% of mineral oil.
Aug. 18	Peter Furniture Co., Juneau.....	Adulterated with 32% of mineral oil.
Aug. 30	Dr. Louis Dorpot, Rhinelander.....	22.74% adulteration,—adulteration being cylinder or lubricating oil.
Sept. 16	Kohler Improvement Co., Kohler.....	Adulterated with 39% of mineral oil.
Sept. 19	Conrad A. Weisler, Loganville.....	Found to be badly adulterated with mineral or machine oil.

MISCELLANEOUS PRODUCTS

Date	Kind	Bought of or Submitted by	Remarks
1918			
July 18	Freezem pickle	*Ed McLean, Green Bay.....	No sulphites present.
July 23	Sugar	*Evans Bros., Oshkosh.....	6% common salt found in the sugar.
July 24	Honey	*Jacob Christen, Auburndale.....	Found to be free from adulteration.
Aug. 19	Paint oil	*Martens Bros., Kilbourn.....	Contains little or no linseed oil. Composed largely of mineral oil and resin oil.
Sept. 10	Pineapple fingers	Peterson Bros., Hurley.....	No adulteration found.
Sept. 11	Icene	W. C. Schmeisser Co., Shawano.....	Tested for prohibited chemical preservatives. None found.
Sept. 11	Body sugar	*U. S. Food Administration, Madison.....	Found to be dehydrated glucose.
Sept. 17	Cold storine	Geo. Nelson, Ladysmith.....	Tested for prohibited chemical preservatives. None found.
Sept. 24	Creme fluff	Geo. Elser, Beaver Dam.....	Found to be calcium sucrate.
Sept. 25	California cherries	Miller-Waterman Co., Cumberland.....	Flavor good for this kind of cherry. Very little if any benzaldehyde. Considerable alcohol.
Sept. 26	Pork and beans.....	W. N. Richardson, Beaver Dam.....	Adulterated—unable to find pork.
Sept. 26	Red kidney beans.....	W. N. Richardson, Beaver Dam.....	No adulteration.
Oct. 7	Cherries	J. B. Bremann, Wittenberg.....	Flavor: benzaldehyde. Very poor cherries. Tough and woody.
Oct. 7	Jam (strawberry)	*U. S. Food Administration, Madison.....	Suspected of containing glass. None found.
Oct. 7	Jam (raspberry)	*U. S. Food Administration, Madison.....	Suspected of containing glass. None found.
Oct. 8	Butter	*Mansfield-Caughey Co., Madison.....	Below standard in fat.
Oct. 11	Cherries	Dusel Mercantile Co., Turtle Lake.....	Flavor: mint. Cherries of poor quality; woody.
Oct. 11	Oil	*State Oil Insp. Dept., Madison.....	Found to be a commercial sample of benzol.
Oct. 11	Butter	*C. W. Skowland, Marinette.....	No adulteration found.
Oct. 18	Butter	*E. E. Barlow, Whitehall.....	No adulteration found.
Oct. 18	Farina	Frank Hanneman, Wausau.....	Found to be full of worms.
Oct. 28	Butter	*R. W. Ainger, Rice Lake.....	No adulteration found.
Nov. 10	Lard oil (2 samples).....	*Hinehey-Phillips Burr Co., Weyauwega...	One sample found to contain 70% of unsaponifiable matter.
Dec. 30	Aspirin tablets	Warner Bros., Ashland.....	Salicylic acid 97.6%, aspirin 2.4%.
1919			
Jan. 2	Evaporated milk	Lange's Market, Berlin.....	Standard.
Jan. 2	Strawberry jam	*C. F. Lee, Madison.....	Salicylic acid present.
Jan. 24	American cheese	E. Link, Hales Corners.....	Cheese badly infested with mold throughout. Unfit for food.
Feb. 6	Kummel cordial	Aug. Starkosky, Turtle Lake.....	Adulterated. Contains sodium benzoate.
Feb. 8	Sut-Not	*Federal Fuel Administration, Madison...	Sodium chloride (common salt)..... 80.14%
			Sodium chlorate
			Iron oxide
			Manganese dioxide
			Insoluble matter
			Moisture

Miscellaneous Products—Continued

Date	Kind	Bought of or Submitted by	Remarks
1919			
Mar. 3	Honey	*John Kuehl, Thorp.....	Free from adulteration.
Mar. 18	Pie filling	Schermitzler Bros., South Kaukauna.....	Not standard. Composed largely of corn starch; some chocolate and coconut present. Artificially colored to make it appear better or of greater value than it really is.
Mar. 24	Honey	*Geo Stuhlfouth, Wausau.....	Free from adulteration.
Mar. 31	Pork and beans.....	E. A. Kohlhopp, Eau Claire.....	Beans found to be unprocessed and unfit for consumption. Not spoiled.
April 1	Cheese	Johnson Bros., Eau Claire.....	Misbranded. Contains less than stated weight.
April 1	Cheese	Oscar Ballerude, Eau Claire.....	Misbranded as to weight.
April 9	Lemon julee	W. A. Gillmore, Durand.....	Not standard. Contains benzoate of soda.
April 11	Ham sandwich	*Mr. Mace, State Board of Health, Madison	The use of oleomargarine suspected. None found.
April 11	Separator slime	*N. L. Holt, Beloit.....	Tested for protein and fat. Both found present.
April 17	Ice cream powder.....	Stanley Dairy & Warehouse Co., Stanley.	Found to be partly dextranized corn starch.
April 23	Smoked sausage	*Chas. Schiebler, Appleton.....	Tested for chemical preservatives. None found.
April 30	Evaporated milk	D. Reik, Milwaukee.....	Standard.
May 2	Meat from dressed hog.....	*J. J. McGillivray, Chippewa Falls.....	Impossible to determine whether hog had died from disease by examining a small piece of meat.
May 4	Salt	*Witt's Grocery, Ripon.....	Tested for bromides. None found.
May 6	Lemon pie filling.....	E. F. Davis, Milwaukee.....	Found to be a mixture of corn starch and citric acid. Flavored with terpenes oil of lemon.
May 7	White powder	*Gene Lambert, Tomahawk.....	Found to be potassium nitrate.
May 20	Salad dressing	A. Dernehl & Sons Co., Milwaukee.....	Benzoic acid present.
May 20	Salad dressing	J. C. Rostel, Milwaukee.....	Benzoic acid present.
May 20	Salad dressing	Boston Store, Milwaukee.....	No benzoic acid found.
May 26	Paint	*Anton Moeth, Sun Prairie.....	Contains about 31% of a comparatively light mineral oil.
June 4	Canning compound	A. F. Werner, Black River Falls.....	Composed of boric acid and sodium chloride.
June 5	Sweet oil	J. Verhulst, Milladore.....	No adulteration found.
June 10	Brown sugar	*Brey-Leischow & Zander, Algoma.....	Sorghum sugar sold for brown sugar.

* Submitted by.

OLEOMARGARINE

Date	Bought of or Submitted by	Manufacturer or Jobber	Results	Remarks
			Per cent	
1918				
Oct. 15	*Harry Kluefer, Madison.....	Swift & Co., Chicago.....	Moisture 22.14 Salt and curd..... 7.06 Fat 70.80	Contains an excessive amount of moisture. Low in fat.
Oct. 21	A. Mack, Madison.....	Swift & Co., Chicago.....	Moisture 19.80	
Oct. 21	A. & P. Tea Co., Madison.....	Armour & Co., Chicago....	Moisture 13.20 Salt and curd..... 4.79 Fat 82.01 Salt and ash 3.69	Contains an excessive amount of moisture.
Oct. 21	A. & P. Tea Co., Madison.....	Geo. P. Braun Co., Chicago	Moisture 10.17 Salt and curd..... 3.63 Salt and ash..... 2.43 Fat 86.20	
Oct. 21	Geo. M. Link, Madison.....	W. J. Moxley, Chicago.....	Moisture 11.31 Salt and curd..... 5.76 Fat 82.93 Salt and ash..... 4.28	
Oct. 21	E. L. Hatfield, Madison.....		Moisture 12.96 Salt and curd..... 5.49 Salt and ash..... 4.28 Curd 1.21 Fat 81.55	
Oct. 21	Simon Bros., Madison.....	E. R. Godfrey & Sons, Milwaukee.	Moisture 12.35 Salt and curd..... 4.67 Salt and ash..... 3.51 Curd 1.47 Fat 82.98	
Oct. 21	Piper Bros., Madison.....	Troco Nut Butter Co., Milwaukee.	Moisture 14.41 Salt and curd..... 5.40 Salt and ash..... 3.64 Curd 1.76 Fat 80.19	
Oct. 21	Simon Bros., Madison.....	Jelke Co., Chicago.....	Moisture 11.60 Salt and curd..... 4.25 Salt and ash..... 2.84 Curd 1.41 Fat 84.15	

Oleomargarine—Continued

Date	Bought of or Submitted by	Manufacturer or Jobber	Results	Remarks
1919 Oct. 30	Stanz Modern Grocery, Fond du Lac.	Nucoa Butter Co., Chicago.		Not standard. Contains benzoate of soda.
Nov. 27	*G. A. Servis, Madison.....	Swift & Co., Chicago.....	Moisture 11.28 Salt and curd..... 4.74 Fat 83.98 Salt and ash..... 3.51 Curd 1.23	
Dec. 13	Henry Laetzow, Lake Mills.....	Swift & Co., Chicago.....		Held to be in semblance of yellow butter.
Dec. 28	Schaefer Bros., Appleton.....	Swift & Co., St. Paul....		Held to be in semblance of yellow butter.
Dec. 30	Buehler Bros., Fond du Lac.....	Swift & Co., Chicago.....		Held to be in semblance of yellow butter.
Dec. 31	A. Voegeli, Monticello.....	Swift & Co., Chicago.....		Held to be in semblance of yellow butter.
1919 Feb. 7	B. A. Pieser, Turtle Lake.....	Nucoa Butter Co., Chicago		Not standard. Contains benzoate of soda.
Feb. 17	Miller-Waterman Co., Cumberland..	Downey-Farrell Co., Chicago.		Not standard. Contains benzoate of soda.
Mar. 6	E. A. Peterson, Ellsworth.....	Swift & Co., Chicago.....		Held to be in semblance of yellow butter.
Mar. 6	John Long & Sons, Stanley.....	North Western Egg & Poul- try Co., Eau Claire.		Not standard. Contains benzoate of soda.
May 6	Frank Fahland, Clam Falls.....	B. S. Pearsall Butter Co., Elgin, Ill.		Not standard. Contains benzoate of soda.

* Submitted by.

OLIVE OIL

Date	Bought of or Submitted by	Manufacturer or Jobber	Remarks
1918			
Aug. 30	S. La Piana, Milwaukee.....	La Piana Drug Co., Milwaukee.....	Badly adulterated with cottonseed oil. Contains little or no olive oil.
Oct. 11	Peter Chiodo, Cumberland.....	La Piana Drug Co., Milwaukee.....	Badly adulterated with cottonseed oil. Contains little or no olive oil.
Oct. 11	Peter Chiodo, Cumberland.....	La Piana Drug Co., Milwaukee.....	Badly adulterated with cottonseed oil. Contains little or no olive oil.
Oct. 29	J. M. Hoveld, Menomonie.....	H. J. Heintz, Pittsburgh.....	Standard.
Oct. 29	Michael-Sandvig Co., Menomonie.....	The Garibaldi Co., Chicago.....	Misbranded. Contents not correctly stated.
Oct. 29	Waterman-Erhard Co., Menomonie.....	The Pomplean Co., Baltimore, Md.....	Standard.
Dec. 6	*La Piana Drug Co., Milwaukee.....	.....	No adulteration found.
Dec. 6	*La Piana Drug Co., Milwaukee.....	.....	No adulteration found.
1919			
Feb. 19	J. Pucci, Kenosha.....	La Piana Drug Co., Milwaukee.....	Badly adulterated with cottonseed oil. Contains little or no olive oil.
Mar. 4	*Waterman-Erhard Co., Menomonie.....	.....	Standard.

* Submitted by.

POTATO FLOUR

Date	Bought of	Manufacturer or Jobber	Date	Bought of	Manufacturer or Jobber
1918			1918		
July 1	Geo. Post, Barron.....	Sprague Warner Co., Chicago.	July 1	Lee Bros., De Pere.....	Sprague Warner Co., Chicago.
July 1	Young & Co., Monroe.....	Sprague Warner Co., Chicago.	July 1	Thompson's Inc., Oconomowoc..	Sprague Warner Co., Chicago.
July 1	Wm. Steinmeyer Co., Milwaukee.	J. C. Morgan Co.,	July 1	F. B. Koschmann, Wausau.....	Sprague Warner Co., Chicago.
		Traverse City, Mich.	July 2	Jackson & Sons Co., De Pere...	Sprague Warner Co., Chicago.

Potato Flour—Continued

Potato Flour—Found to be mixtures or potato starch

Date	Bought of	Manufacturer or Jobber	Remarks
1918			
July 1	Miller & Weaver, Monroe.....	Guejer & Calkins, Freeport, Ill.....	Not a potato flour. A mixture of about 80% corn starch and 20% potato flour.
July 1	Carroll Brothers, Monroe.....	Henry Horner Co., Chicago.....	Not a potato flour. A mixture of about 80% corn starch and 20% potato starch.
July 1	E. H. Smith, New London.....	J. P. Thern & Co., New London.....	Not a potato flour. A mixture of about 75% corn starch and 25% potato starch.
July 1	Paul Bielecke, Dodgeville.....		Not a potato flour. Found to be potato starch.
July 1	V. G. Berryman, Dodgeville.....	W. M. Hoyt, Chicago.....	Not a potato flour. A mixture of about 75% corn starch and 25% potato flour.
July 1	Wm. Steinhmeyer Co., Milwaukee.....	J. C. Morgan Co., Traverse City, Mich.....	Not a potato flour. Found to be potato starch.
July 1	Woodward Bros., Little Rapids.....	G. B. Hess Co., Green Bay.....	Not a potato flour. Found to be potato starch.
July 1	Vienna Bakery, Wausau.....	Stein, Hall & Co., Chicago.....	Not a potato flour. Found to be potato starch.
July 1	Chas. H. Wegner, Wausau.....	Stein, Hall & Co., Chicago.....	Not potato flour. Found to be potato starch.
July 1	G. A. Osswald, Wausau.....	Reid, Murdoch & Co., Chicago.....	Not potato flour. Found to be potato starch.
July 1	Geo. E. Lindsey, Wausau.....	Stein, Hall & Co., Chicago.....	Not potato flour. Found to be potato starch.
July 1	Geo Kuhlman, Wausau.....	Stein, Hall & Co., Chicago.....	Not potato flour. Found to be potato starch.
July 1	Henry Pagenkopf, Wausau.....	Stein, Hall & Co., Chicago.....	Not potato flour. Found to be potato starch.
July 1	G. A. Rick, Wausau.....	Reid, Murdoch & Co., Chicago.....	Not potato flour. Found to be potato starch.
July 1	Clarence Webster, Melvina.....	Sprague, Warner & Co., Chicago.....	Not potato flour. Found to be potato starch.
July 1	Walter & Fredericksen Co., Oconomowoc	Edward Dewey, Milwaukee.....	Not potato flour. A mixture of about 10% potato starch and 90% corn starch.
July 1	Hellerude Grocery, Brodhead.....	Reid, Murdoch Co., Chicago.....	Adulterated. Not a potato flour—potato starch.
July 1	A. Johnson Co., Oconomowoc.....	Stein, Hall & Co., Chicago.....	Not potato flour. Found to be potato starch.
July 1	Chas. Walter, Oconomowoc.....	Edward Dewey, Milwaukee.....	Not potato flour. Found to be potato starch.
July 2	Mrs. John Winters, Ixonia.....	Edward Dewey, Milwaukee.....	Not potato flour. Found to be potato starch.
July 2	Wm. Dittberner, Ixonia.....	Watertown Grocery Co., Watertown.....	Not potato flour. Found to be potato starch.
July 2	G. H. Marks, Madison.....	Gould, Wells & Blackburn Co., Madison.....	Not potato flour. A mixture of about 25% potato starch and 75% corn starch.
July 2	H. Mack, Madison.....	Gould, Wells & Blackburn Co., Madison.....	Not potato flour. A mixture of about 20% potato starch and 80% corn starch.
July 2	Frank Bros., Madison.....	Gould, Wells & Blackburn Co., Madison.....	Not potato flour. A mixture of about 20% potato starch and 80% corn starch.

July 2	John L. Colby, Madison.....	Gould, Wells & Blackburn Co., Madison.....	Not potato flour. A mixture of about 15% potato starch with about 85% corn starch.
July 9	Taylor Feed Store, Platteville.....	Stein, Hall & Co., Chicago.....	Not potato flour. Found to be potato starch.
July 9	Robert Brockman, Platteville.....	W. M. Hoyt & Co., Chicago.....	Not potato flour. A mixture of about 90% corn starch and 10% potato starch.
July 10	Stadel Bros., Benton.....	R. Barrett, Galena, Ill.....	Not potato flour. Found to be potato starch.
Nov. 14	Love Bros., Waukesha.....	Dahiman & Inbush Co., Milwaukee.....	Not potato flour. Found to be potato starch.

Potato Flour—Submitted Samples

Date	Submitted by	Remarks
1918		
July 2	Food Administration, Madison.....	Found to have been bleached with sulphur dioxide. Contained sulphurous acid.
July 3	H. Klueter, Madison.....	Not potato flour. Found to be potato starch.
July 11	Ruth Henderson, Home Dem. Agent, Kenosha.....	No adulteration found.
July 20	Jake Fiedman, Madison.....	No adulteration found.
July 22	C. J. Kremer, Milwaukee.....	Not potato flour. Found to be potato starch.
July 22	C. J. Kremer, Milwaukee.....	Not potato flour. Found to be potato starch.
July 29	C. J. Kremer, Milwaukee.....	Not potato flour. Found to be corn starch with approximately 15 to 20% potato starch.
July 29	C. J. Kremer, Milwaukee.....	Not potato flour. Found to be potato starch.
Aug. 21	Wm. Dressen, Waupaca.....	No adulteration found.

SACCHARINE PRODUCTS

Date	Kind	Bought of or Submitted by	Manufacturer or Jobber	Remarks
1918				
July 10	Syrup	*Carl Peters, La Crosse.....	.....	Not standard. Contains more than 35% of water.
Aug. 15	Bottler's syrup	Rhineland Bottling Works, Rhineland.	The Schuster Co., Cleveland.....	Not standard. Contains benzoate of soda.
Aug. 19	Cane syrup	Paul Wetzke, La Crosse.....	Frommes Chemical Co., La Crosse	Not standard. Contains more than 35% of water. One third of the total sugars is invert sugar.
Aug. 19	Cane syrup	Frommes Chemical Co., La Crosse	Frommes Chemical Co., La Crosse	Not standard. Contains more than 35% of water. One third of the total sugars is invert sugar. No adulteration found.
Oct. 22	Syrup	Wm. Rebenoursh & Sons, Park Falls.	Gowan-Lenning-Brown Co., Duluth, Minn.	No adulteration found.
Oct. 24	Maple syrup	*Wallace H. Lord, Waupaca.....	.....	Sample contained large amount of sand and woody material, presumably bark. Unfit for use.
Nov. 7	Maple sugar	Farmers Store Co., Chippewa Falls.	.....	No adulteration found.
1919				
Jan. 9	Syrup	Higgins & Hughes, New Richmond	Fred Fear Co., New York.....	No adulteration found.
April 14	Maple syrup	*H. L. Johnson, Manawa.....	.....	No adulteration found.
April 15	Maple syrup	*Mrs. E. W. Barber, Janesville.....	.....	Below legal standard in solids.
April 15	Maple syrup	*H. E. Lauber, Glenwood City.....	.....	No adulteration found.
April 16	Maple syrup	*J. J. Watson, Manitowoc.....	.....	No adulteration found.
April 17	Maple syrup	Chas. Salak Co., Manitowoc.....	.....	Misbranded. Not labeled with name of manufacturer or dealer. No statement of net contents.
June 16	Maple syrup	*M. Johnson, Hartford.....	.....	Below legal standard in solids.
June 16	Maple syrup	*M. Johnson, Hartford.....	.....	Below legal standard in solids.

TURPENTINE

Turpentine—Standard

Date	Submitted by	Date	Submitted by
1919			
Mar. 12	Consolidated Water Power & Paper Co., Grand Rapids.	April 10	Rudolph Andres, Tomah.....
Mar. 25	C. C. Sniteman Co., Neillsville (bought of).	April 10	H. F. Mallman, Sheboygan Falls.

Turpentine—Not Standard

Date	Bought of	Remarks
1918		
Aug. 26	Chcs. Bertram, Marion.....	Adulterated with 72% of a mineral oil of the nature of kerosene.
1919		
May 1	Blecka & Hemig, Athens.....	Adulterated with 72% of a mineral oil of the nature of kerosene.

VINEGAR

Date	Submitted by	Grams acetic acid per 100 ccs.	Remarks
1918			
July 10	Stolper Bros. Co., Plymouth.....	1.6	Not standard.
Aug. 30	Geo. Hackwell, Clinton.....	2.6	Not standard.
Sept. 10	James H. Beirne, Oakfield.....	4.53	Standard.
Oct. 3	I. A. Travis, Elkhorn.....	1.68	Not standard.
Oct. 25	Eau Claire Grocery Co., Eau Claire.....	4.425	Standard.
Oct. 29	S. W. Phelps, Markesan.....	1.4	Not standard.
Oct. 29	S. W. Phelps, Markesan.....	0.75	Not standard.
Oct. 29	S. W. Phelps, Markesan.....	3.42	Not standard.
Oct. 29	S. W. Phelps, Markesan.....	4.0	Standard.
Oct. 29	Mrs. Wiekstrom, Clinton.....	0.84	Not standard
Oct. 29	S. W. Phelps, Markesan.....	3.8	Not standard
Oct. 29	Mary Hackwell, Clinton.....	5.2	Standard.
Oct. 31	Thompson's Inc., Oconomowoc.....	4.0	No adulteration found.
Nov. 22	C. Bopf & Son, Wausau (bought of).....	2.79	Not standard.
Nov. 27	E. M. Price, Evansville.....	5.52	Standard.
Nov. 27	E. M. Price, Evansville.....	1.53	Not standard.
Nov. 27	E. M. Price, Evansville.....	4.26	Standard.
Nov. 27	E. M. Price, Evansville.....	2.2	Not standard.
Dec. 30	George Splice, Clinton.....	4.1	Standard.
Dec. 30	George Splice, Clinton.....		

Vinegar—Continued

Date	Submitted by	Grams acetic acid per 100 ces.	Remarks
1919			
Feb. 24	George Spilce, Clinton.....	4.45	Standard.
Mar. 25	A. E. Capener, Baraboo.....	5.67	Standard.
Mar. 25	A. E. Capener, Baraboo.....	4.32	Standard.
Mar. 25	A. E. Capener, Baraboo.....	5.99	Standard.
April 17	N. F. Maynard, Beaver Dam.....	3.4	Not standard.
April 17	Silas W. Phelps, Markesan.....	1.01	Not standard.
April 17	Silas W. Phelps, Markesan.....	0.63	Not standard.
April 17	Silas W. Phelps, Markesan.....	1.92	Not standard.
April 17	Silas W. Phelps, Markesan.....	1.54	Not standard.
April 17	Silas W. Phelps, Markesan.....	1.57	Not standard.
April 25	W. M. Ellis, Endeavor.....	4.15	Standard.
April 25	W. M. Ellis, Endeavor.....	5.17	Standard.
April 25	W. M. Ellis, Endeavor.....	3.83	Not standard.
April 25	W. M. Ellis, Endeavor.....	3.82	Not standard.

**REPORT OF C. E. LEE, ASSISTANT DAIRY AND FOOD
COMMISSIONER AND DAIRY SPECIALIST**

HON. GEORGE J. WEIGLE,
Dairy and Food Commissioner.

Sir: I hereby submit a report of the duties performed by me during the year ending June 30, 1919, together with suggestions and general statements as to existing conditions and changes that should be made in order that the dairy industry may continue to make progress.

I have had general supervision of the dairy work which includes all of the inspection of dairies, butter and cheese factories, condensaries, skimming and cream buying stations, and the market milk supply.

Personal inspection was made of several of the large plants manufacturing butter sold to the local trade in the principal cities. Samples of the butter manufactured were obtained and submitted to the chemist. A large number of these samples were found to contain less than the required per cent of butter fat. Prosecutions were brought and conviction secured in every case where it was found that the methods used in the manufacture of the butter were such as to result in a product low in per cent of butter fat. As a result of this work factory operators are more watchful in the manufacture of butter containing an excessive amount of water and salt.

It was found necessary to bring action against employers or officers of two corporations more than once in order to check the sale of adulterated butter.

The reports submitted by each inspector in the field have been closely studied. In a number of cases it was found necessary to assist the men in making a reinspection of some of the factories. In other cases letters were written to the operators to follow up the work of the inspector and to learn what progress had been made to comply with state regulations. It was necessary to bring two factory operators in Dane County into court for persistent violation of the Statute relating to maintaining factory utensils and premises in an insanitary condition. In each case the fine imposed by the judge was fifty dollars and costs, with a statement by the court that if another violation occurred a jail sentence would be imposed.

Sometime was also devoted to the study of city milk problems to assist the men in their respective territories in dealing with the problems that arise in this line of work. In one city a large dairy man was found selling milk produced by a Guernsey herd and approximately one-fourth of the butter fat had been removed. In the city

of Wausau I assisted the principal of the high school, Ira. C. Painter, in a two-day campaign in the interest of milk as a food, its production and distribution. A great deal of interest was shown in this work by the local board of health and school officials, as well as by the milk producers. One objection was raised by the producers against the plan proposed, that of requiring all cows to be free from tuberculosis as shown by tests, before the milk could be sold in the city, and this objection was raised on the cost of having the cows tested.

I have been called upon to assist factory operators in planning repairs on old buildings and in the erection of new ones. Two special trips were made for that purpose,—one of which was to assist the Arthur Creamery Company near Rewey in getting the new factory under way. Many others have been assisted by means of plans and suggestions sent from the office.

Some time has been devoted to the work done by the special dairy and food inspector stationed at Stoughton. Assistance was rendered to the Civil Service Commission in conducting the examination held on February 15 to secure a list of eligible dairy and food inspectors.

Considerable time has been devoted to the work of getting the five new men added to the inspectional force within the past year acquainted with the method of doing inspectional work. This has necessitated conferences in the field as well as in the office. It is very gratifying to be able to report that good results were obtained by all of these new men in the field.

In September of last year I assisted two men from the federal department in making a study of the methods used in the manufacture of Wisconsin creamery butter. The various methods used in the manufacture of the higher and lower grades were examined and no doubt were compared with the data obtained in similar studies in other states. They were given an opportunity to examine the grade of butter entered at the 1918 State Fair.

Early in the year I was requested to act as a member of the dairy and poultry division of the Food Administration. In that capacity I was called upon to advise and to act in all matters pertaining to that division. I was also appointed by the Food Administrator to act as a member of a committee to arbitrate in the matter of fixing the value of milk delivered to the condensary at Middleton. The patrons and the owners, the Valecia Condensed Milk Co., had failed to agree as to whether the price set by the Chicago Milk Producers' Association should also apply to Middleton territory.

As a member of that committee I suggested a plan that was agreed to by the other members of the committee, the Valecia Condensed Milk Co. and the patrons. The plan as set forth in the letter to A. H. Melville, Secretary of the Food Administration, on August 19, 1918 was the beginning of a new method of fixing milk prices.

Mr. A. H. Melville, Sec.,
Food Administration,
Madison, Wisconsin.

Dear Sir:

As a member of the committee appointed by you to arbitrate in the matter of fixing the price to be paid for milk by the operators of the Middleton Condensary to the patrons of the Middleton plant, I wish to make the following report:

I submitted to the committee this plan for a basis of settlement: The value per pound of butter fat should be based on the average Chicago market price for the month for 92 scoring butter. A differential of 6 cents shall be used as an additional value of the butter fat. This was fixed at 6 cents because it is the approximate difference between the average value of this grade of butter on the Chicago market for the month of July and the price paid by several creameries in Wisconsin.

In addition to a fixed price per pound of butter fat, the patrons of the Middleton Condensary shall be paid for their skim milk on the basis of the value of corn; namely, each hundred pounds of skim milk should be valued at one-half the price of a bushel of corn for the month. To determine the amount of skim milk that a farmer should be paid for, 85 per cent of the total amount of milk delivered should be considered skim milk. The price of corn as given in the report issued by the Wisconsin Department of Agriculture shall be considered official. The price of butter as given in the report of the Bureau of Markets, Chicago office, shall be considered official.

This plan was accepted by the other members of the committee, Professor J. L. Sammis of the Dairy Department of the University, and Mr. W. W. Powers of the Food Administration.

At the request of the Secretary of the Wisconsin Butter Makers' Association, I was asked to lead the debate against the use of a neutralizer in cream before being churned into butter. There were two speakers for and two against. Since this is a question of vital importance to the future welfare of the butter industry of the state, the discussion is of general interest and a copy of my address at that meeting is submitted below.

NEUTRALIZATION CANNOT PRODUCE QUALITY BUTTER

It is an honor to be called upon to defend the already recognized reputation of Wisconsin's creamery butter against the practice of neutralization. The worst enemy of the local creamery, regardless of its ownership, whether cooperatively or individually owned, is the possibility of marketing cream that contains a high per cent of acidity, is tainted, and that neutralization can be resorted to before such cream is manufactured into butter. The best butter is made in those sections where the marketing of tainted, high acid cream has been reduced to a minimum. Local plants are handling the product and all of the patrons are more than anxious to aid in making good butter.

HIGH ACID CREAM TAINTED

Good, clean-flavored butter, the product that has aided in the agricultural development of the state, can only be manufactured from butter fat delivered to the creameries in milk or cream that is free from taints and objectionable flavors. Generally speaking, cream high in acidity when received at the churning plants is more or less tainted and cannot be made into strictly high grade butter. Wisconsin creamery men agree that cream that is high in acid is usually tainted. In other words, when a patron delivers cream three times per week, and the product is high in acid, the resulting butter is apt to be tainted, not because of the acid that was present but because of the taints that were present and that affected the butter fat. It is also a well-known fact that when the cream is delivered sweet, even if it has age, it is generally clean in flavor. Acidity and taints are closely associated and are usually found in the same can or ripener of cream.

PRODUCTION OF GOOD CREAM POSSIBLE

In the butter producing counties of the state, it is possible for every dairyman to produce and deliver cream that will make good butter. This is possible in the cheese and milk producing section as well, providing there is a limit of acidity and flavor permissible in cream when it is offered for sale. The names of several creameries in this state that demand a high quality of cream can be mentioned. The two factories in Waupaca County with an output of 873,205 pounds in 1918 are examples of what can be done in demanding cream of high quality. Many Polk County factories are in this class, and others in the central, eastern and southern sections are splendid examples.

HOW QUALITY IS LOWERED

In a certain section of Wisconsin there is located a large creamery company which for more than 20 years has aided in the development of the dairy industry. High quality butter has been their aim, although at times they have fallen short because of competition. During the past season, as in former years, I inspected two of their plants, making a special study of the quality of the butter manufactured. In discussing creamery problems with the manager it was brought out that it was exceedingly difficult to maintain the former standard against the buyers of cream who apparently had no consideration for quality. The manager had been approached by the field agent of the creamery company asking that he ship to them all cream that was too tainted to be used in the grade of butter demanded by their trade. The agent had said they could use this cream and would allow him two cents per pound butter fat in excess of cost.

In order that I might obtain more definite information I visited a cream buying station. The person in charge stated that in the three years that he had acted as a cream buyer not a single can of cream had been rejected, nor had he ever advised his patrons regarding the quality of their product or how it should be cared for. The same day another station was visited, and I found twenty-eight ten-gallon cans ready for shipment. The quality of this cream was such that butter scoring only 88 to 90 would have resulted. All of the cream seen that day was going to churning plants where neutralization of all of the cream received during the summer months is practiced.

DAIRYING A DEPENDABLE INDUSTRY

It is a well-known fact that dairying has been one of the greatest factors in placing the state in the lead in many agricultural activities. It has aided in the development of the northern cut-over lands, transforming them from an area of wilderness to one of many well-tilled farms. It has made the balance of the state rich in splendid homes and people, well-tilled farms, dotted with herds that are admired by prospective buyers from other states. It matters not if they are the lovers of the black and white or of those from the islands to the north of England they soon become satisfied that Wisconsin's many signs of prosperity may be directly attributed to the income from the dairy.

When men come to the state to learn of our methods, they soon become impressed with the local creamery, cheese factory or condensary established as a permanent institution to handle the product of the community.

METHODS HAVE CHANGED

With the general progress of agriculture general methods of handling the products of the farm have changed. This is equally true of dairy products. Some fifteen years ago it was very common to find a large amount of milk being hauled to the butter factory for the purpose of being skimmed, the cream churned, and the skimmed milk taken back to the farm. Today the milk is skimmed at the farm and cream taken to the nearby creamery or placed in the cream haulers' wagon or shipped.

The reason for this is well known to all, and need not be discussed at this time. When these changes came, methods of factory operation had to be changed as this was a new problem.

At the farm a milk house or some other suitable place for the separator had to be provided. At first the cream was not cared for so as to result in a good product. As time went on there was a marked improvement; today there are factories making butter from cream skimmed on the farm that is equal in quality to the so-called "whole-milk butter", and this has all been accomplished by education and cooperation.

QUALITY OF RAW MATERIAL

High quality raw material is necessary to make a superior finished article. Even the well-known Limburger cheese must have its beginning in milk that is near perfection. Evaporated or condensed milk will not possess recognized quality unless the milk is low in acid and free from taints when it enters the hot wells.

It is not possible for the operators of condensaries to even attempt to build up reputations when they accept milk that must be neutralized. If the milk received must be corrected by neutralization, the finished product will not be of standard quality.

Our men who have spent years in Wisconsin's factories realize that high acid tainted cream cannot be made into butter that will win the gold medal or please the critical buyer.

INFLUENCE OF CREAM QUALITY

Bulletin No. 210, issued in June 1911, by the Wisconsin Experiment Station, has this to say on the influence of the quality of cream on the butter industry:

"At one time Wisconsin was considered a state where a large proportion of the butter was manufactured in factories where nothing but whole milk was received. Only a few years ago some of the commission men on South Water Street, Chicago, were heard to remark: 'A large proportion of the good butter which reaches the market comes from Wisconsin. This is accounted for by the large number of creameries in that state receiving whole milk.'

"Whole milk factories receive the milk daily during the summer months and three to four times per week during the winter. This insures milk of such quality that good butter can be manufactured. With the system of using farm separators came less frequent deliveries; factory men paid more attention to quantity than to quality. There was no system of cream grading. Butter fat in tainted off-flavored cream and that delivered in whole milk or clean-flavored cream was paid for at the same price. All of this has had its effect upon the quality of butter. In order to make good butter, the butter fat in the milk or cream must be free from taints. There is a direct relation between the two.

"There must be a change in the general method of factory operation with reference to quality of cream received before a marked improvement in the quality of the butter will be noticeable. Good butter can be made from farm-skimmed cream of clean flavor. In the future the ability of the product of the creamery industry of Wisconsin to compete upon the central markets will be determined largely by the quality of the butter manufactured. The butter merchants are beginning to recognize that there is now a wider range in the quality

of creamery butter than formerly, and that in the future each consignment of butter must be paid for according to quality.

"Good butter will always be in demand but the under grades do not move readily; hence, the manufacturers or the patrons must suffer. The public will continue to demand good butter and unless it can be purchased many will buy substitutes. It is therefore of concern to the creamery industry of the state to give attention first of all to quality."

In the same bulletin a table is presented giving the average score placed upon the butter entered in the scoring exhibitions conducted by the Dairy Department of this state. This has furnished valuable information with reference to the influence the kind and quality of the raw material have upon the quality of the butter manufactured therefrom.

Butter that was made from whole milk scored 93.40, 92.15, 92.75, and 93.68 for four years, and butter made from farm-skimmed cream scored 92.48-91.72, 91.24, and 91.78 for the same four years.

FACTORY SYSTEM FAVORS QUALITY

The factory system of the state in its organization is such that cream of fairly good quality is received. In many plants it may be classed as having excellent quality. Factories are in charge of men who favor the manufacture of butter from high grade cream only. Nearly all of the men who in the past have at times resorted to neutralization now prefer to receive cream that has not lost its original flavor. Not long ago a well-known creamery man made the statement, "We neutralize but we would rather receive the product that is free from taints and high acid." Professor G. L. McKay on December 4, addressed a letter to the Dairy and Food Commissioner of Wisconsin. This statement appeared among others: "Everybody, I think, must realize that the quality of the cream has an important bearing on the finished product. It is true that possibly neutralization will be continued from year to year, as there will always be some who will neglect the care of their cream." A mighty clear statement of why neutralization is resorted to. Many butter makers when asking for help to secure positions specify: "I would like to get a position in a creamery receiving a good grade of cream."

NO ECONOMIC NECESSITY FOR NEUTRALIZATION IN WISCONSIN

The 850 butter factories now in operation are in charge of men who, at one time or another, have had training at the Wisconsin Dairy School, an institution of recognized standing, or have come indirectly under its influence. Very few of these men have received any training in the use of neutralizers, mainly because neutralization of cream is not considered a factor in the production of good butter.

One of the main arguments set forth by these men who favor neutralization is that it is an economic necessity to save a valuable food product. Such an argument has no place when dealing with the cream produced by Wisconsin dairymen. There is no excuse for high acid tainted cream for we have an abundance of cold water to use in keeping the cream cool and sweet. Cold springs are found everywhere. Furthermore, our dairymen, even if located somewhere in the northern woods, can and do place upon the market clean-flavored sweet cream. As an example of what can be accomplished under adverse conditions, let me tell you what happened a few years ago. At the close of a talk before a group of dairymen in Burnett County in August, a dairyman asked me to examine a can of cream that contained his entire output for one week. This cream had been hauled for ten miles and the month was August. Yet, that cream was good and could have been used for table purposes. Why? Because the cream was cold and had been properly cared for. The can was covered with freshly cut grass and two blankets. Contrast this treatment of cream with what I have seen in some cream buying stations where cans of cream received after 3:00 P. M. would not leave for its destination until 3:00 P. M. the next day, no ice in sight, no cold water, covers wired down to prevent them from being raised by the swelling of the cream and a fifteen hour railroad journey to follow. Which butter would you prefer?

At the dairy department of the Wisconsin College of Agriculture where a large amount of butter is made from various grades of cream, none of it aside from class demonstration is neutralized before being churned into butter. This in itself should convince Wisconsin men that it is not necessary to add to cream before it is churned a substance entirely foreign to it. Very few of the largest and best organized factories of the state have in the past resorted to neutralization of cream before it is made into butter. The highest price for butter fat to cream producers of the state for the year 1918 was paid by the operators of factories receiving cream that was not neutralized. According to reports from the Bureau of Markets, Chicago, the highest quotations are made on butter in the whole milk class.

United States Department of Agriculture
Bureau of Markets

Date	Whole Milk Score	Centralized Score	Whole Milk Score
		90	92
Nov. 1	57.5	57.75	58 1/2
Nov. 2	57.5	57.75	58 1/2
Nov. 4	58	58	58.75
Nov. 5	58	58	59
Nov. 6	58	58.25	59 1/2
Nov. 7	58	58.5	59 1/2
Nov. 8	58 1/2	58.25	59 1/2
Nov. 9	58 1/2	58	59.5
Nov. 11	Holiday		
Nov. 12	58.5	58	59.5
Nov. 13	59.5	58.25	60.5
Nov. 14	60	58.50	61
Nov. 15	60	59	61
Nov. 16	60.5	59.5	61.5
Nov. 18	61	60	62
Nov. 19	61.5	60.25	63
Nov. 20	62	60.25	63.5
Nov. 21	62	60.5	63.5
Nov. 22	63	60.5	64.5
Nov. 23	63	60.5	64.5
Nov. 25	62	61	65
Nov. 26	63	61	65.5
Nov. 27	63	61	65.5
Nov. 29	63	61	66
Nov. 30	64	61 1/4	66.5
	60.4	58.5	61.7
Dec. 2	65	62	67
Dec. 3	65	62	67 1/2
Dec. 4	65	62 3/4	67 1/2
Dec. 5	65	62 3/4	67 1/2
Dec. 6	65	62 3/4	67 1/2
Dec. 7	65	62 3/4	67 1/2
Dec. 9	65	63 1/4	67 1/2
Dec. 10	65	63 1/2	67 1/2
Dec. 11	65	63 1/2	67 1/2
Dec. 12	65	63 1/2	67 1/2
Dec. 13	64	63 1/2	68
Dec. 14	64	63 1/2	68
Dec. 16	64 1/2	64	68
Dec. 17	64 1/2	63 3/4	67 1/2
Dec. 18	64 1/2	63 3/4	67 1/2
Dec. 19	64 1/2	63 3/4	67 1/2
Dec. 20	64 1/2	63 1/2	67 1/2
Dec. 21	64 1/2	63 1/4	67 1/2
Dec. 23	64	62	67 1/2
Dec. 24	64	62	67 1/2
Dec. 25	Holiday		
Dec. 26	63 1/2	61 3/4	67 1/2
Dec. 27	63	62 1/4	66 1/2
Dec. 28	63 1/2	62 1/2	66 1/2
Dec. 30	64.0	64	67.0
Dec. 31	64.0	64.0	67.0
	64.4	63.0	67.4

The above facts show that if Wisconsin butter were made from neutralized cream it would be placed outside of the whole milk goods.

NAVY BUTTER

During the past year a great deal of Wisconsin high-grade butter was manufactured to supply the demands of the Navy. This was made possible for the reason that in some Wisconsin factories clean-flavored raw material was received and no neutralizers were used. The credit for the high standard in Navy butter belongs to the Dairy Division, United States Department of Agriculture. The Navy butter is made from sweet cream and the raw material cannot contain beyond a specified maximum of acidity when received at the factory. A great deal of this butter is made in Wisconsin for a special trade and the firm dealing in that product received a very flattering compliment from the Government inspector who made inspection of the product held in cold storage and commandeered by the federal government. A prominent resident of Chicago, who is an expert on butter, wrote me on October 22, 1918 as follows: "This letter relates to butter yet is purely personal. I have had to eat butter of the common or garden variety. I would like to arrange for my family to get regularly each week five pounds of good, freshly churned, sweet cream, unlimed butter. I wonder if you can help me out on this matter?"

A representative of a firm buying a great deal of our high grade butter made the statement in the office a few weeks ago: "No neutralizer is ever, to our knowledge, used in the manufacture of the butter demanded by our trade. In fact, we would not permit of its use." All of the butter bought by this firm is made from pasteurized cream.

NEUTRALIZATION WOULD RETARD GROWTH

The development of the dairy industry of the state would be retarded if neutralization were resorted to in the manufacture of the bulk of its creamery butter for the reason that the value of all of this product in the state would be reduced fully \$2,000,000 annually as the result of the lowering of the grade. There would then be no market, no distinction between whole milk and centralized butter.

The work of the dairy and food inspectors has not only aided in securing better factory conditions; they have visited many dairy farms where milk and cream are produced, thus securing better dairy conditions in general. The problems of housing the cows, proper feeding and the erection of dairy houses have been discussed freely by our state men. They have also made suggestions regarding the importance of producing good clean-flavored cream. In this they have met with a marked degree of success. They have had to contend with a few dairymen who have argued that the cream buyer has never said a single word regarding the quality of his product.

This work will be continued but its value will be greatly impaired when it becomes generally known by the dairymen that their product, produced under ideal conditions must meet upon the open market a product that is made from an inferior raw material.

THE FUTURE OF THE INDUSTRY AT STAKE

The dairy industry of the state is not in its infancy, but it is still making progress. Each year many new factories are built in order that the equipment and the facilities for handling may be the best. There is a general feeling of stability and cooperation between the patrons and the local plant. Hence, it would not be a wise policy for the factory operators and makers to adopt a method in the manufacture of butter which is used by those who are not in position to aid the industry.

Our product has stood the test of years. It has made good; the consumers have not been deceived. It would therefore not be well to even consider the advisability of a free use of neutralizers in cream handling. The consumer of butter has a right to be informed of what he is buying. The butter made from neutralized cream has not the quality found in butter made from the unneutralized product.

In March I was called upon to address the North Dakota State Dairymen's Convention held at Grand Forks. I have also spoken before a large number of local groups in the state.

MARKET MILK PROBLEMS

Many new problems have arisen in connection with the inspection of market milk. These are largely due to the advance in the price paid to the producers and the fact that the consumers are unwilling to pay the corresponding increase per quart for milk delivered by the dairymen or dealers. Many of the larger plants were not able to secure efficient men to take charge of the various departments, and for this reason sanitary conditions were not always maintained.

The value of butter and cheese has also had its influence on the supply of milk available, not alone for the larger cities but in those sections where the village or city depends upon dairymen to furnish milk and cream. Many dairymen held that it was more remunerative to sell milk or cream for the purpose of being manufactured into butter or cheese than to bottle the product and deliver it to the city trade. In many cities evaporated milk has taken the place of fresh milk for table use when the latter was not available.

During the winter months all of the men devoted nearly all of their time to city milk problems, making inspections of the plants as to sanitary conditions and the quality of the milk and cream received. Samples of milk and cream were also obtained from the wagons when making regular deliveries, in order to learn if the product sold complied with state regulations. The number of violations was not greater than in former years in the smaller villages or cities, while in some of the larger cities there seems to be a tendency on the part of a few not to consider the question of quality or standard as an essential factor of success in the retail milk and cream business.

This department must continue to urge that the larger cities should, in a measure, regulate the production and distribution of market

milk. This would simplify the work of the regular inspectors of this department. No city, however, should be left entirely without inspection by the state for the reason that many local problems arise that are not easily handled by the local authorities. We must continue to urge that milk and cream be sold only from those dairies where all the cows are known to be free from tuberculosis and in the state of health prescribed by the State Live Stock Sanitary Board. It is very important that market milk inspection be made more frequently than heretofore. Winter and summer conditions are not alike. Problems arise at certain seasons and can best be taken care of when they occur. Dairy inspection from the viewpoint of market milk production should be frequently made and especially at a time when the cows are housed. Every dairy man should be urged to provide a suitable place where the milk may receive proper care until it is delivered. Some means should also be provided for the proper cleaning and sterilizing of all utensils used in handling milk.

Every effort possible should be made to acquaint the consumers with the facts pertaining to the value of milk as food, its use in cooking and in the feeding of infants.

THE MILK SITUATION IN OSHKOSH

On December 16, 1918 an inspection was made of the milk and cream supply of this city. A total of thirty-six samples of milk was bought as the dealers or dairymen were making their daily deliveries. Seventeen of these were found to contain more or less sediment. Twenty-one samples of cream were bought and eleven of these contained less than the standard of 18 per cent butter fat.

These results plainly show the need of inspection.

BUTTER FACTORY PROBLEMS

Wisconsin still maintains its place in the manufacture of creamery butter. A slight decrease in the number of factories in operation, due to the extension of cheese territory, the development of the condensing industry and the increase in the number of cream buying stations, has to a small extent reduced the total make.

Many of the large local plants have maintained their usual output and have made an effort to take care of the cream produced in the territory they operate. The income from the sale of butter will far exceed that of any previous year because of the higher prices butter has brought upon the market as compared with any previous twelve-month.

Factory conditions have improved but not as extensively as they would had there not been a shortage of building material and of labor. In a few cases the old buildings have been replaced by new ones.

Many of the buildings now in use are not suitable and should in the

very near future be replaced by new structures or undergo extensive repairs.

The quality of the butter manufactured in many localities compares favorably with the quality in previous years. In fact less complaint has come to this office regarding the butter made in the so-called local factories this year than ever before. This is not true of the product made by the creameries depending upon cream buying stations or shippers for their source of raw material. The difference in the quality of the butter made by these two groups of factories is largely due to the difference in the quality of the cream when it is delivered to the churning plants.

Nearly all of the operators of creameries not depending upon local supply for cream and some of the local plants have resorted to the use of a neutralizer in treating the cream before it is churned. It has been my observation that when cream is so treated it is of a lower quality than the cream that is churned without the addition of lime, etc.

The treating of the cream at the factory by a neutralizer is an evil that is growing, and for the future of the industry and the reputation of our product, this system must be discouraged. Wisconsin dairymen can and will produce cream that can be made into good butter without being treated, but since they have found that there is a market for the stale, high acid tainted product they are going to follow the road of least resistance.

An effort should be made to get the factory operators and station men to cooperate for better quality cream to be used in the making of butter. If the standard is not raised the competition thus created will force the creameries now working on a quality basis to lower their standard. The so-called "centralized" or "standard" butter which is the neutralized product is always quoted at a lower figure on all principal markets than the higher grades, the product made from clean-flavored cream. The centralized product is usually offered in car lots and this makes the selling price higher than if sold the same as the product of the local creamery.

BUTTER SOLD LOCALLY NOT THE BEST

The bulk of the butter sold to the local trade by the grocery stores in nearly all of the principal cities of the state is not of highest quality. This condition exists because the factories making the highest grade of butter are not located in the large cities and the operators of these plants sell the entire output in the large markets, such as Chicago, New York, etc. These local groceries are supplied daily largely by operators of the so-called "centralizing" plants.

Regardless of the kind of raw material that may be used, or how the cream may be treated before it is churned, the butter is placed upon the local markets in cartons bearing the words "fancy creamery butter" or "churned from purest cream" or "made from selected

cream", etc. This is a condition that should not be permitted to go on. A law should also be enacted requiring butter made from neutralized cream to be so labeled when offered for sale within the state.

A great deal of butter sold locally has also been found to be deficient in butter fat. The average per cent of fat in ten samples collected from one concern was 75.9%. The fine imposed for the first offense was \$35.00 and for the second \$60.00 and costs, with one case pending. When butter with this low per cent of fat is made, the company defrauds the consumer to the extent of 7.5 pounds of butter in every 100 pounds sold, or 4.5c on every pound. The fine imposed, therefore, is not sufficiently high to stop such fraudulent practices. The creamery operator who comes in competition with a large corporation manufacturing butter such as referred to has no chance or assurance whatsoever that he may continue in business and pursue honest methods.

In the future a larger number of samples of butter must be collected than heretofore and if the maximum fine imposed by the state does not correct the existing evil, a change in the law must be asked so as to permit of larger penalties. The minimum fine for the second offense should be \$100.00 and for the third offense thirty days in jail.

CHEESE FACTORY PROBLEMS

There has been an increase in the number of cheese factories. This is due to prevailing high prices obtained for cheese as compared with butter. Many plants formerly making only butter are now operated and equipped to make both cheese and butter. The territory has been extended northward in the counties of Lincoln, Langlade, Oconto and Marinette. It has also been extended westward from the so-called north central cheese district into the counties of Eau Claire and Chippewa. The number of cheese factories has also increased in the well-established creamery section of St. Croix, Polk and Barron Counties. A number of new plants have been erected in the counties of Vernon, Crawford and Grant. Very few changes, however, have taken place as to the number of cheese factories in operation in the older districts of the lake shore region, including the counties of Winnebago, Fond du Lac and Dodge, and the Swiss cheese region of southern Wisconsin.

Since no figures have been compiled since 1917 on the output of dairy products and their value, no comparison can be made. It is safe to estimate that the make this year will approach the 300,000,000 pound mark, valued at nearly \$100,000,000.

FACTORY CONDITIONS MUST IMPROVE

There must be a marked improvement in the general conditions of many of the buildings now used as cheese factories. Every effort should be made by this department to show the factory operators that

in a large measure the future of the industry depends upon whether or not the buildings are suitable.

In many localities the milk producers own the building and lease it for one or more seasons to someone who will take the responsibility to act as the operator. These dairymen do not fully realize that their plant has outlived its usefulness and that sooner or later a modern building must be provided. Many of these buildings now used as cheese factories were erected at a time when the milk supply was less than one-half of what it is at the present time; hence a very crowded condition in the factory prevails.

With the passing of war-time conditions when it was not possible to secure building materials, extra efforts should be made by the men in the field to study each factory as to its construction, suitability and the possibility of its being maintained in a sanitary condition. It is not always possible to make changes or repairs during the season of high production, but it should be understood that at the close of the season the recommendations suggested should be carried out or the present license should be revoked and a permit not granted to a new operator.

In many localities it would be a wise policy to advocate the erection of a new building rather than to make repairs on the old structure. In such cases it would be advisable for some factories to make a slight change in location in order to provide more suitable drainage than obtained at present.

In many localities where Swiss, Brick and Limburger cheese are made, the present curing rooms may be adequate and only the erection of a making room necessary. Too many buildings used as cheese factories are not provided with a suitable intake room. This makes it impossible for the maker to examine the condition of milk until it is in the weigh can, and no chance whatever to see the condition of the cans. In many factories it is not possible for the maker to see the man who delivers the milk unless he should stand before the opening through which the milk is poured.

Such conditions must be done away with, or very little may be expected in securing improvement in the quality of the cheese manufactured in many of these plants.

There is also a great need of improvement in the methods used in handling the whey before it is returned to the patrons. Very often the whey tank is located in a room where it is not accessible for thorough cleaning. At other places this tank may be located some distance from the factory, either above or below the surface of the ground, and not easily supplied with the needed hot water for cleaning.

In the foreign cheese districts each patron generally furnishes his own container for whey and in many plants he is required to keep it clean. This often means a neglected container. The place of loading the whey, regardless of the location of the tank or containers, is very often found neglected, creating a nuisance and foul odors. To over-

come these conditions factory operators should be required to provide a suitable place for the farmers' whey tank or containers, have them so protected and constructed as to be easily cleaned. The place of loading the whey should be provided with a platform constructed of concrete or other suitable material, and provided with a drain outlet. Such platform should at all times be kept clean and free from foul odors.

QUALITY CHEESE MUST BE MAINTAINED

The future of the cheese industry of Wisconsin will in a large measure depend upon the standard maintained by those who are directly or indirectly responsible for the manufacture and handling of the state's entire make. It is needless to say that many of the factory operators and makers at all times place upon the market a finished product that could safely bear the name "Made in Wisconsin", but there is a large amount of cheese that does not come up to this standard.

This lower grade of cheese is the result of many complex problems, namely,

1. Many unsuitable plants, already referred to.
2. Factories in charge of men lacking in the standard necessary to produce good cheese.
3. Competition between factory operators for the milk of a given territory is so keen that the makers fail to closely inspect the raw material.
4. The present method of marketing American cheese tends to shorten the time that the cheese is held at the factory; hence no knowledge by either the maker or the operator as to the quality of the cheese when cured.
5. A lack of cooperation between dealers in maintaining a standard as to quality of cheese that should be maintained for the best interest of the future of the industry.
6. Too many men engaged in the operation of factories and in the making of cheese who lack proper training and experience.
7. Too little use is made of the sediment and the curd tests at the intake.
8. Very little is done by the various cheese organizations to place the makers on a higher plane.
9. A tendency on the part of some operators and makers to manufacture cheese containing a high per cent of water.
10. The improper handling of the curd with a view of increasing the loss of fat in the whey, thus increasing the income derived from the sale of whey cream.

SWISS CHEESE INDUSTRY SUFFERS

Wisconsin for years has maintained a national reputation in the manufacture of Swiss cheese. The markets have been good for the home product. The lack of importation of this class of cheese during the period of the war has opened up new fields where our high grade goods might be placed.

Prices have been high and the patrons of those factories where good cheese was made during the entire season have been paid well for their milk. In some factories the loss has been exceedingly high for the reason that many of the large cheeses developed defective spots while passing through the curing stage. These cheeses are commonly called "stinkers". To what extent the Swiss cheese industry has suffered during the past season from this cause alone cannot be estimated. The patrons of the factories where this kind of cheese was made have lost several thousand dollars. It was impossible for this department to take care of all the requests of operators for help that came in during the past season. Inspector Lehnerr has done valuable work in dealing with this problem in a practical way. He has obtained results in so far as his time permitted.

There are other problems confronting this industry and unless something is done in the very near future to aid the Swiss cheese makers, the state may receive a very severe setback. It has been reported that California is making very rapid progress in the manufacture of Swiss cheese. Ohio is another state where this kind of cheese is extensively made. The dairy division of the Department of Agriculture at Washington is making a study of some of these problems and help from that source may be expected.

It would seem advisable at this time that steps be taken to secure the cooperation of the dairy division in placing a man in Green County and adjacent counties to deal with these problems. Such a man should be a trained bacteriologist and could work in cooperation with Mr. Lehnerr who has a greater knowledge of the practical problems involved in the making of Swiss cheese than is possessed by any other state employe.

The Swiss cheese makers are exceedingly busy during the summer months; hence they do not take the time to study these troublesome problems. To further their interest in cheese making and to make them more efficient, local meetings should be arranged during the winter months. Mr. Lehnerr could be placed in charge and render valuable assistance in discussing with these men in a practical way how to overcome the losses that occur due to defective cheese.

DAIRY FARMING MAKES PROGRESS

The war-time conditions that have prevailed during the past few years have not to any visible extent interfered with the normal progress of dairy farming. In certain localities the feed situation due to the rather high price of mill feeds has reduced production when the dairymen depended upon these feeds for concentrates.

In certain territories the dairymen have changed their attitude with reference to how their product shall be made up, for the reason that prices paid for fluid milk delivered to condenseries and milk plants was at times considerable higher than could be obtained for the same product sold to factories manufacturing butter. Cheese fac-

tories have also taken more than the usual share because cheese has maintained a higher price than butter. Many dairymen did not consider that the feeding value of skimmed milk and whey increased persistently with the value of other feeds.

There has been but little increase in the number of condenseries, milk powder and milk receiving plants, although there has been an increase in the volume of milk handled by these institutions. The increase in the manufacture of ice cream has also created a demand for the output of evaporated milk and regular cream.

In the so-called cheese districts, interest in dairying has increased, more cows are being milked and a greater interest in production of milk during the late fall and winter months has arisen. Many new factories have been erected to take care of added territory and increased production.

The creameries established in the regular butter producing counties located north and west of the Wisconsin River have held their own even if there has been several markets created in that territory for fluid milk. Some of the factories located on the border of cheese districts have installed equipment so as to make both butter and cheese. Whether cheese or butter will predominate will depend largely upon the market price of these two commodities in the future.

Many farmers are taking an active interest in cowtesting association work, and all other lines of activity, having for their object better cows and more efficient herds. All of this is evidence that milk production is still very popular with many Wisconsin dairymen.

Many new barns and silos were built during the past year, making it possible to provide good stable conditions and desirable feed at lowest possible cost. Personal interviews with many dairymen located in nearly all of the leading dairy centers have convinced me that they are interested in the style of farming that will insure a steady, regular income. They agree that the prices paid for milk and for the butter fat in cream have been high, but the income has been cut accordingly by the extra labor costs, high priced feeds, etc. The balance, however, is on the side of the dairymen providing they have conducted their business in such a manner as to obtain the greatest returns for feed used and labor expended.

No figures were compiled showing the production for 1918 but the 1917 report as to pounds of cheese and butter manufactured converted into milk on the basis of 10 pounds of milk being equivalent to 1 pound of cheese, and 25 pounds of milk equivalent to 1 pound of butter, gives the total milk production for the state as follows:

Milk used for cheese made in factories	2,772,674,440
Milk used for cheese made on farms	8,412,620
Milk used for butter made in factories	2,533,132,125
Milk used for butter made on farms	198,812,000
Milk used for condensaries	747,540,078
Milk for other than butter, cheese and condensed milk ..	912,627,750
Milk shipped out of the state	245,000,000
Milk used for ice cream	40,000,000
TOTAL	7,458,199,013

With the normal increase the production for 1919 should be approximately 8,000,000,000 pounds. The value of cheese will approximate \$100,000,000; butter \$45,000,000 and milk to condenseries and milk plants \$30,000,000. This, together with the added value of factory by-products, etc., will make the total value of the dairymen's income much higher than ever recorded in Wisconsin's history of dairy progress.

A great deal must be done during the coming year to show the dairymen that the future of the industry will in a large measure depend upon the quality of product delivered to condenseries, butter and cheese factories and milk plants. The volume of business should not be considered unless due consideration is given to quality. The losses from lack of quality in cheese referred to elsewhere in this report is only one item. Losses from inferior quality in butter may very easily reach the \$1,000,000 mark.

It is important that all activities by the various organizations be directed at the root of the evil, lack of quality in the raw material, rather than to the manufacture of a product from raw material which is tainted in flavor and defective in workmanship.

WHEY CREAM PRODUCTION INCREASES

The prevailing high prices paid for butter fat during the past year have naturally increased the number of factories that have installed equipment for the handling and the skimming of the whey. The operators of the smaller factories located in the foreign cheese district should also consider this problem from the viewpoint of saving human food and an additional income for the dairyman.

There is a good market offered for whey cream by factory operators who make butter from both whey cream and regular cream and also by cream buying stations or by shipping direct to creameries located within the state and in Illinois, Iowa or Minnesota. The price paid for whey cream, in most cases, is the same as that paid for cream shipped by dairymen.

According to the reports on file in this office by the inspectors in the field there are still a large number of cheese factory operators and makers who do not realize that whey cream is a product to be used as food for man. Whey holding tanks are located in unsuitable rooms, not protected from flies, dust and filth. Pipe lines poorly washed, jets used that cannot be cleaned, whey holding tanks are rusty and poorly washed. No provision is made in many factories for the proper care of the cream until it is delivered to the creamery or railroad station.

These conditions must be corrected. So far the inspectors have been working with a view of obtaining results by persuasion and education and prosecution. Progress by this method has been very unsatisfactory. It is therefore advisable that more drastic methods

be pursued in order that whey cream may be produced and sold in compliance with state standards and regulations.

NUMBER OF CREAM BUYING STATIONS INCREASES

There has been a marked increase in the number of cream buying stations in operation during the past season. Many of these are located in the northern counties where dairying has not developed to the extent that a creamery can be maintained. Other stations are located in cheese factory territories in order that a ready market may be provided for whey cream and also in creamery sections.

When these stations are located in villages or cities where a creamery is established, competition is created that very often has a tendency to lower the standard of the cream produced by many of the dairymen. Creamery operators as a rule are more alert than the station men as to the flavor, acidity of the cream and the general condition of the cans. This makes it exceedingly difficult for the butter maker in charge of the local creamery to maintain his standard when he knows that they will lose patronage.

The changing of the law by the 1919 legislature placing the cream buying stations under the licensing system will make it possible to maintain a closer supervision of these station men. They should be placed under the same rules and regulations as the operators of creameries and cheese factories. The standard for quality in cream delivered to cream buying stations should be the same as that maintained by the butter factory operators. Provision should also be made to properly handle the cream while in the station.

Wherever possible the men in the field should inspect the cream received at both the stations and butter factories. Recently one dairyman was told that the cream in his possession was unfit for human food and if it was offered for sale prosecution would follow. His reply was: "Nearly all of the cream received by the ——— is not much better because no standard is maintained by the operator." If these conditions continue in that territory prosecution of the guilty parties will follow.

All cream received at stations is made into butter by factory operators located either within or outside the state; hence all parties interested regardless of location should cooperate on the basis of quality.

If all of the dairymen of the state, and nation as well, who depend upon the butter industry as a source of income from the sale of butter fat in cream, understood the relation between quality and progress, the situation would not be what it is at the present time. The most effective means by which this end may be reached is education and elimination of markets for the tainted, stale, high acid cream.

MEANS OF TRANSPORTATION FOR THE FIELD MEN

During the past year three new cars were purchased, making the total number of cars used by the dairy and food inspectors six. Two of the men are using their own cars, and only one man depends on the railroad and livery in making his territory.

It has been found that when the men are using their own cars or those furnished by the department, a much larger territory is covered at less expense than if the inspector depends upon the railroad and livery. Actual comparison as to the cost of inspection cannot be made because of the difference in territory and the nature of the work performed, and because new men were placed in charge of the work in one-half of the counties.

One of the men who has been with the department for several years and always depended upon local livery in making inland points reported that it was impossible to make much progress because livery was not available unless engaged several days in advance. He also reported that the rates were much higher than prevailed in former years.

When the men are furnished with cars, it is possible to cover a much larger territory than by any other means of transportation. The number of inspections made each week is increased, besides making it possible to take care of the requests for special inspection in various points of the territory at a saving of time and expense.

At times inspectors are called upon to make certain factories or dairies early in the morning or late in the evening. When they have their own means of transportation in making such points the actual cost is much reduced.

It is the opinion of the men using state owned cars that their efficiency is maintained at its highest point and the expenses greatly reduced. The department should adopt the policy of furnishing each inspector with a car unless he wishes to operate his own machine on a fixed mileage basis. At present the allowance is 10c per mile. It is doubtful if the department can maintain the cost of operating its cars at an average figure much less than that. All cars do not give the same results even under similar care in operation. The roads in certain counties are much harder to travel; hence there is a great difference in the yearly cost of operating expenses.

**REPORT OF R. W. SMITH, CHIEF INSPECTOR OF
WEIGHTS AND MEASURES**

Hon. George J. Weigle,

Dairy and Food Commissioner,

Ex Officio State Superintendent of Weights and Measures.

Dear Sir: I have the honor to submit herewith the annual report of the state department of weights and measures for the fiscal year ending June 30, 1919.

In the following report an effort has been made to touch briefly upon the more important phases of the work of the department of weights and measures. Each subject has been treated separately for ease in reference.

Tabulation and graphic representation have been resorted to whenever it was felt that the use of these methods were advantageous.

MECHANICAL WORK

There has been a gratifying increase in the amount of mechanical work performed by the field inspectors during the past year. A comparison of the figures for the last two years shows that, in the year just ended there was a gain of 1.024 or over seven and one-half per cent in the number of establishments inspected and a gain of 11,144 or over eight and one-half per cent in the number of appliances tested, the percentages being based on the 1918 figures.

This increase may be accounted for by a combination of several circumstances. First the weights and measures inspectors have been relieved of all but a small amount of sanitary work, this being handled almost entirely by the food inspectors. Thorough inspections of sanitary conditions consume considerable time and the time formerly devoted to this work by the weights and measures men is now given to the examination of weighing and measuring equipment.

Second, the use of a state owned truck by two of the inspectors for transporting their testing equipment has materially speeded up the work of these men. Third, less time has been devoted to the enforcement of the Trading Stamp law and the Automobile License law. This was due, in the former case, to the fact that pending litigation made the proper interpretation of the Trading Stamp law dependent upon court decisions and it was necessary to await these decisions before proceeding with the enforcement of the law; and, in the latter case, the difficulty of securing license plates and supplying them to automobile owners caused the office of the Secretary of state to request that our men temporarily cease their efforts along this line.

Fourth, the gradual improvement of the mechanical condition of the weighing and measuring equipment in use in the state makes it possible for the inspectors to cover the ground somewhat more rapidly.

The chart prepared last year showing a comparison of the mechanical work performed by the field men for 1916, 1917 and 1918 is again submitted this year with the work for 1919 shown in addition. It will be noticeable that there is only a slight increase in the percentage of equipment sealed and only a slight decrease in the percentage condemned for repairs with an increase of six hundredths of one per cent in the number condemned. This comparison emphasizes the statement made in last year's report when, in commenting upon the improvement in the mechanical condition of weighing and measuring apparatus it was said "A point, however, is reached beyond which this improvement cannot go because, after all, scales are nothing but machines and as such deteriorate with use; and measures and weights wear out the same as any other article which is in constant use."

TABULATION OF MECHANICAL WORK PERFORMED BY STATE DEPARTMENT FIELD INSPECTORS JULY 1, 1918, TO APRIL 30, 1919

Appliances	Sealed	Adjusted	Condem'ed for Repairs	Con- demned	Total
Seales:					
Counter	5,098	386	133	49	5,280
Hopper	241	32	14	.....	255
Suspension	146	12	10	4	160
Computing	4,633	1,209	136	7	4,776
Wagon	1,527	137	283	13	1,823
Port. Platform	5,587	576	317	69	5,973
Dormant	892	94	43	1	942
Spring	880	49	30	191	1,101
Torsion	202	4	12	5	219
Beam	106	10	1	1	108
Moisture	85	4	1	.....	86
Prescription	386	6	1	4	391
Jewelers	34	1	1	3	38
Cream	315	9	10	1	326
Test Bottles .....	.....	.....	.....	95	95
Dry Measure	73	.....	2	5	80
Liquid Measure	18,692	9	173	1,265	20,130
Prescription Grad.	1,970	1	10	343	2,323
Aut. Pumps	3,683	565	240	32	3,955
Linear Measure	7,185	137	42	76	7,303
Weights	61,983	1,351	645	960	63,538
Totals.....	113,673	4,592	2,104	3,124	118,902

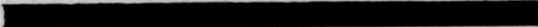



SUMMARY

Weights and Measures:	
Estimated inspections	12,355
Appliances tested	118,902
Estimated tried out	2,023
Packages weighed	14,036
Packages underweight	1,250
Sanitary and Food Inspections	792
Oil Inspections	82





Note.—The appliances adjusted have been sealed and in figuring the totals are included in the "sealed" column.

**COMPARISON OF PERCENTAGES
OF MECHANICAL WORK FOR
FISCAL YEARS 1916, 1917, 1918,
1919.**





FIELD WORK—STATE DEPARTMENT

	<i>Sealed</i>	<i>Per Cent</i>
1916		85.06
		
1917		88.52
		
1918		95.05
		
1919		95.42
		





Adjusted

	1916	3.83
	1917	3.05
	1918	4.28
	1919	3.88

Condemned for Repairs

	1916	2.98
	1917	6.94
	1918	2.35
	1919	1.92

Condemned

	1916	11.96
	1917	4.54
	1918	2.60
	1919	2.66

TABULATION OF MECHANICAL WORK PERFORMED BY STATE DEPARTMENT FIELD INSPECTORS MAY 1, 1919, TO JUNE 30, 1919

Appliances	Sealed	Adjusted	Condem'd for Repairs	Con-demned	Total
Scales:					
Less than 2 lbs.....	217	10	44	5	266
2 lbs. to 350 lbs.....	1,646	164	67	62	1,775
350 lbs. to 3,500 lbs.....	1,301	213	62	12	1,375
Over 3,500 lbs.....	340	21	114	4	458
Weights	9,864	249	147	163	10,174
Measures:					
Linear	835	16	18	11	864
Liquid	4,076	122	106	294	4,476
Dry	4				4
Totals	18,283	795	558	551	19,392

SUMMARY

Weights and Measures:	
Estimated inspections	2,175
Appliances tested	19,392
Estimated tried out.....	172
Packages weighed	1,068
Packages short	112
Sanitary Inspections	151
Oil Inspections	13

Note.—The appliances adjusted have been sealed and in figuring the totals are included in the "sealed" column.

SUMMARY OF MECHANICAL WORK PERFORMED BY STATE DEPARTMENT FIELD INSPECTORS FOR FISCAL YEAR ENDING JUNE 30, 1919

Appliances	Sealed	Adjusted	Condem'd for Repairs	Con-demned	Total
Scales:					
Less than 2 lbs.....	1,239	34	69	18	1,326
2 lbs. to 350 lbs.....	12,363	1,818	367	310	13,040
350 lbs. to 3,500 lbs.....	7,034	801	389	85	7,508
Over 3,500 lbs.....	3,006	284	454	19	3,478
Weights	71,797	1,600	792	1,123	73,712
Measures:					
Linear	8,020	153	60	87	8,167
Liquid	28,421	697	529	2,029	30,979
Dry	77		2	5	84
Totals	131,957	5,387	2,662	3,675	138,294

SUMMARY

Weights and Measures:		Total
Estimated inspections		14,530
Appliances tested		138,294
Estimated tried out.....		2,195
Packages weighed		15,104
Packages short		1,362
Sanitary Inspections		151
Oil Inspections		95
Prosecutions		15
Convictions		14

Note.—The appliances adjusted have been sealed and in figuring the totals are included in the "sealed" column.

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TABULATION OF MECHANICAL WORK PERFORMED IN THE OFFICE JULY 1, 1918, TO APRIL 30, 1919

Appliances	Sealed	Adjusted	Condem'ed for Repairs	Con- demned	Total
Scales:					
Counter			1		1
Hopper					
Suspension					
Computing					
Wagon	4		1		5
Port. Platform					
Dormant					
Spring	145				145
Torsion					
Beam	2	1			2
Slot Machine					
Test Bottles	22			30	52
Prescription					
Jewelers					
Cream	85	4	7		92
Moisture	19	1	15		34
Dry Measure	3				3
Liquid Measure	12				12
Prescription Grad.	1				1
Aut. Pumps					
Linear Measure	2				2
Weights (Metric)	169	1			169
Avoirdupois	34	16			34
Prescription					
Troy					
Totals.....	498	23	24	30	552

Note.—The appliances adjusted have been sealed and in figuring the totals are included in the "sealed" column.

TABULATION OF MECHANICAL WORK PERFORMED IN THE OFFICE MAY 1, 1919, TO JUNE 30, 1919

Appliances	Sealed	Adjusted	Condem'ed for Repairs	Con- demned	Total
Scales:					
Less than 2 lbs.....	68	6	15		83
2 lbs. to 350 lbs.....	3		2		5
350 lbs. to 3,500 lbs.....					
Over 3,500 lbs.....					
Weights	139	8		3	142
Measures:					
Linear					
Liquid					
Dry					
Totals.....	210	14	17	3	230

Note.—The appliances adjusted have been sealed and in figuring the totals are included in the "sealed" column.

SUMMARY OF MECHANICAL WORK PERFORMED IN THE OFFICE FOR THE FISCAL YEAR ENDING JUNE 30, 1919

Appliances	Sealed	Adjusted	Condem'ed for Repairs	Con- demned	Total
Scales:					
Less than 2 lbs.....	172	11	37		209
2 lbs. to 350 lbs.....	150	1	3		153
350 lbs. to 3,500 lbs.....					
Over 3,500 lbs.....	4		1		5
Weights	342	25		3	345
Measures:					
Linear	2				2
Liquid	35			30	65
Dry	3				3
Totals.....	708	37	41	33	782

Note.—The appliances adjusted have been sealed and in figuring the totals are included in the "sealed" column.

SUPERVISORIAL WORK

During the period covered by this report there has been a slight decrease in the number of try out inspections made as compared with the previous year and of the total number reported the percentage of short or misbranded packages has increased from 12.8% to 14.5%. It should not be assumed from these figures that fourteen and one-half per cent of the merchandise sold in the state was deficient in weight or was not properly labeled because this assumption would be far from the true facts of the case. The inspectors, as a rule, examine in their try out work only those packages which are suspected of being short or which past experience has shown them are apt to be short. Many of the shortages reported are within a reasonable degree of tolerance or may be accounted for by a natural loss in moisture content, as in the case of milk products of different kinds; it should also be borne in mind that a package is reported as "short" if it falls ever so little below the standard in weight or measure. The value of these reports lies in the fact that whenever *any* shortage is found, be it large or small, the matter is brought to the attention of the proper parties and the condition responsible for the shortage is remedied. It also goes without saying that short packages are always corrected when found and, though originally short, they reach the consumer full weight or measure.

The value of systematic supervisory work try outs, educational activity, prosecutions etc.,—cannot be overestimated. In these days of unprecedented high prices this work is necessary as never before for there has never been a time when a small variation from correct weight or measure represented so large a money value. This supervisory work is fully as important as the testing of scales, weights and measures for mechanical accuracy because no purpose is served

in having equipment mechanically correct if this equipment is not properly used. It is to be greatly regretted that the territories of the state weights and measures inspectors are not smaller so that they might devote a greater portion of their time to check up work and still cover their allotted territory yearly along mechanical lines.

COMMENTS ON CITY SEALER'S REPORTS

An examination of the reports submitted by the city sealers of the state shows that in many cases there is still room for considerable improvement along the lines of supervisory work. This is most noticeable among the smaller cities although some of the larger ones are equally at fault.

It is true that in some cases try out work is performed and no record of the number of visits or of the work performed is kept. But this explanation is not entirely satisfying in all cases. There still appears to be a lack of appreciation of the absolute necessity of consistent, systematic supervisory activity on the part of local officials if we are to have anything approaching ideal weights and measures conditions.

The old question of proper remuneration for city sealers also has a distinct bearing on this subject. If more nearly adequate salaries were paid, particularly in the smaller cities, the sealers would have more time to devote to their work and consequently the supervisory branch of their work could and would receive greater attention.

It is also to be noticed that some cities are still without equipment to test druggists' and jewellers' scales and in some cases, druggists' graduates. This is due largely to neglect on the part of the sealer himself for the law makes ample provision for procuring the necessary equipment even in those cases where the local council fails to take the initiative. Vigorous action by the sealer, in which the state department could cooperate, is all that is necessary in this matter.

In a number of cases there is a noticeable falling off in the number of mechanical inspections made. The reason for this is not quite clear unless it may be the fact that salary increases have been conspicuous by their very small number and that under present conditions a given salary does not justify as great an expenditure of time as the same amount of money did a year or so ago. In this connection it might be said that whatever possible the city sealer should not confine himself to the yearly examinations of equipment provided by statute. A year is the *longest* period which should elapse between tests; and the local official should make his tests as much more frequently as possible.

Dry measures have practically disappeared from the state except in and around Milwaukee. Strenuous efforts should be made to bring this locality up to a par with the balance of the state in this regard.

The establishment of public markets supervised by the municipalities seems to be increasing. In most cases the city sealer is the supervising officer. Reports indicate that these markets are well patrolled both in the farmers and by the public and their success seems assured.

TABULATION OF MECHANICAL WORK
CITY DEPARTMENTS OF WEIGHTS AND MEASURES
July 1, 1918, to June 30, 1919

City	Weights and Measures Appliances					Containers		
	Sealed	Adj.	Cd. Rep.	Cond.	Total	Cor-rect	Incor-rect	Total
Antigo	283	21	10	7	300	128		128
Appleton	3,651	131	37	128	3,816	1,628	40	1,668
Ashland	430	41	7	1	488			
Baraboo	947	215	18	39	1,004			
Beaver Dam								
Beloit	1,527	152	33	48	1,608	429	1	430
*Chippewa Falls	323	37	10	5	338			
Eau Claire	981	103	19	25	1,025			
Fond du Lac	1,694	71	46	166	1,906	278	9	287
Grand Rapids	692	138	5	38	735	1,233	4	1,237
Green Bay	2,862	411	168	103	3,133	211	76	287
Janesville	653	19	2	5	660	45		45
Kenosha	1,904	63	52	77	2,033	578		578
La Crosse	1,930	14	23	88	2,041	89		89
Madison	2,936	234	40	74	3,050	434	121	555
Manitowoc	1,672	123		2	1,674	175		175
Marinette	622	53	2	15	639	146		146
Marshfield	981	83	4	13	998	14	3	17
Menasha	301	48		11	312	61		61
Menomonie	714	30	3	45	702	1,816		1,816
Merrill	332	6	4	7	343	49		49
Milwaukee	41,414	219	872	514	42,800	1,261	2	1,263
Neenah	680	7		13	693	727	13	740
†Oconto	223	22	4	55	282			
Oshkosh	2,011	87	92	24	2,127	96	1	97
Portage	1,036		2	28	1,066	2,496	864	3,360
Racine	3,969	418	108	238	4,315	1,011	167	1,178
Rhineland	849	122	15	36	900	228		228
Sheboygan	3,051	42	120	26	3,197	211	22	233
South Milwaukee	241	25	8	17	266	21		
Stevens Point								
Superior	4,506	254	35	67	4,608	3,811	113	3,924
Watertown	1,800	293	53	86	1,989	319	25	344
Waukesha	397	57		23	420			
Wausau	3,049	96	37	74	3,160	633	20	653
West Allis	1,094	47	23	24	1,141	64		64
Totals.....	89,755	3,682	1,852	2,122	93,729	18,192	1,481	19,673
Per cent	95.7	3.9	2.0	2.3				

* Appointed May 7, 1919.

† Appointed February 4, 1919.

Note.—The appliances adjusted have been sealed and in figuring the totals are included in the "sealed" column.

TABULATION OF SUPERVISIONAL WORK
CITY DEPARTMENTS OF WEIGHTS AND MEASURES

July 1, 1918, to June 30, 1919

City	Try-Outs				Prosecutions	
	Number of visits	Number of tests	Number found short	Mis-branded	Cases brought	Convictions
Antigo		288				
Appleton	679	5,045	498			
Ashland	159	349				
Baraboo						
Beaver Dam						
Beloit	1,712	3,549	358		1	
* Chippewa Falls	14	112	29	12		
Eau Claire	148	887	102	3		
Fond du Lac	301	1,561	19			
Grand Rapids	1,440	990	165			
Green Bay	177	796	178	3	8	6
Janesville						
Kenosha	91	521	4		1	1
La Crosse	156	511	2			
Madison	429	977	150	16	1	1
Manitowoc	4	20			1	
Marinette	34	230	2	46		
Marshfield	67	52	7	3	1	1
Menasha	70	152	10			
Menomonie	298	875	23			
Merrill	25	25				
Milwaukee	1,203	8,276	409	86	18	17
Neanah	1,641	11,927	46			
† Oconto	7	7				
Oshkosh	58	370	7	23		
Portage		519	41		1	
Racine	1,119	6,051	3,289	664	3	3
Rhineland	262	2,118	52	37	2	2
Sheboygan	379	695	219		2	2
South Milwaukee		135	1			
Stevens Point						
Superior	850	3,654	50	185		
Watertown	1,049	2,671	130	52		
Waukesha	120	210				
Wausau	650	2,782	22			
West Allis	50	181	23			
Totals	13,192	56,531	5,831	1,488	38	35

* Appointed May 7, 1919.

† Appointed February 4, 1919.

STATE OWNED TRUCKS

The experiment of a state owned truck, (known as Truck No. 1), specially constructed to carry all the equipment of the field inspectors, including one set of twenty fifty pound weights, has proved a decided success and meets with the enthusiastic approval of the inspectors themselves. A Ford one ton truck chassis was purchased last fall and a special body, designed for our work, was built thereon. There is an enclosed driver's cab providing ample protection against inclement weather; there are adjustable windows in the sides and rear of the cab and an adjustable windshield, thereby providing adequate ventilation. The body of the truck is divided into two compartments, the rear one containing the fifty pound weights and the

forward one the working cases and personal grips of the men. The truck has plenty of power for all demands ever made upon it and develops a speed of between fifteen and twenty miles an hour.

The use of the truck makes the inspectors independent of outside delivery and drayage service with the delays and uncertainties and great expense incident thereto. The testing of scales, particularly of the heavier types, is better and more rapidly performed and the item of expense is greatly reduced.

The following tabulation shows the itemized expense on truck No. 1 during the time it has been operated, namely from October 16, 1918, to November 29, 1918, and from April 21, 1919, to June 30, 1919. The truck is not equipped with a speedometer so the mileage indicated is an estimate made by the driver. An item of \$7.30 for additional equipment for the truck is not included nor is an item of \$14.00 for storage from November 30, 1918, to April 20, 1919.

Miles travelled	1233
Gasoline	
Gallons	182
Cost	\$52.73
Lubricating Oil	1.50
Hard Oil	1.25
Repairs	4.70
Storage	46.00

Total Cost \$106.18

From this tabulation the following facts are apparent:

Total running cost per mile (including storage charges)	8.6 cents
Running cost per mile (not including storage charges)	4.9 cents
Mileage per gallon of gasoline	6.77

It should be remembered in considering the mileage per gallon of gasoline that much of the time the truck is used for very short hauls, sometimes being moved only a few feet on or off a scale, and that the time of continuous traveling is comparatively small; the result is that the motor is started a great many more times and that low speed is used much oftener than might be expected from the distance travelled with a consequent increased gasoline consumption.

It has been found advisable to have two inspectors work together on the truck. The moves from one town to another being short little time is lost in traveling; and, particularly in the testing of heavy scales, two men can work to very good advantage together. Two light outfits are carried and on light work each inspector can work independently so there is no duplication or loss of time.

The use of Truck No. 1 proved so satisfactory that in the latter part of April another chassis was purchased to be equipped in a similar manner. A few slight changes were made in the body design to overcome objections that developed in the use of No. 1, but in the es-

sential points the two trucks were identical. Owing to delays in building the cab and body Truck No. 2 was not ready for use until June 24. It was put into service on that date in the southern part of the state.

With four such trucks in the service of this department the efficiency of our field force would be very greatly increased and the expense incident to the hauling and transportation of equipment would be materially cut down. It is now impossible to secure horse livery in hundreds of places and where it can be secured the charge is high—from six to seven dollars a day being the customary figures; automobile hire is almost universally twenty cents a mile or, if a lump sum is charged for a trip, it amounts to practically as much. Adequate means for reaching inland towns and for transporting a half ton of test weights being prime requisites in the field work of this department, it is apparent, in view of the high cost of renting this service, that it is a matter of plain economy to motorize the department and that the sooner this is done the sooner the beneficial results of the change will be manifest.

One advantage in the use of state owned trucks which was immediately apparent was that the inspectors could carry additional equipment which it is impracticable for them to carry when dependent upon freight and hired conveyances for transportation. Five gallon field standards of the latest Seraphin type have been provided for each truck and, as soon as they can be secured from the manufacturer, it is planned to furnish each truck with a similar measure in the one gallon size; these measures are for the purpose of testing liquid measuring pumps. Each truck is also furnished with two twenty-five pound cast iron weights to be used in bridging the gap between the so-called small weights and the fifty pound size.

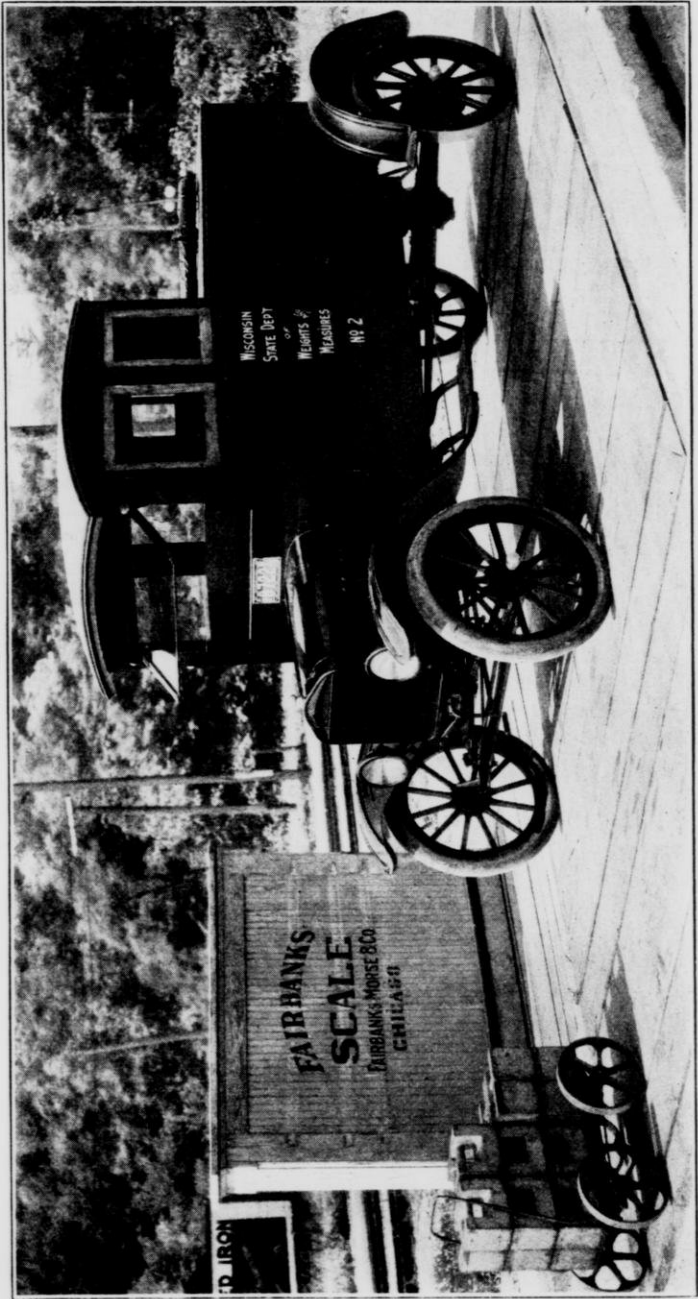
The use of the automobile truck made possible a further experiment in the handling of test weights on large scales. At the suggestion of one of the field men a small four wheeled truck or cart was designed by means of which the test weights could be readily moved about from one position to another on a wagon scale platform. The truck is made entirely of metal with twelve inch wheels and is standardized at one hundred pounds. Two shot cups fastened to the under side of the truck provide the necessary means for weight adjustment. In use, eighteen 50 pound test weights are placed on the truck, the customary 1000 pound test load being thereby provided, and the entire load is concentrated within an eighteen inch square. The truck can be easily moved from corner to corner or on or off the scale platform.

For ease in transporting the testing truck inside of the automobile truck body the wheels are made removable. Self-contained pins, which drop into place by gravity, are provided in the ends of the shafts and the truck can be knocked down or assembled in a few seconds.

The advantages claimed for this testing truck, which has been in use with Truck No. 1, for almost six weeks, are a decided saving of

time in the testing of large scales and a very great lessening of the physical effort required of the inspectors. These claims are borne out by experience and the use of the testing truck may be considered a success and its advent may be said to mark a distinct advance in the methods of scale testing in this state.

The illustration shows Truck No. 2 and the testing truck. The latter is in position for a corner test of the scale. When the picture was taken the entire set of twenty weights was placed on the truck but, as explained above, only eighteen are used in testing.



SUMMARY OF FIELD INSPECTORS' EXPENSES FOR THE FISCAL YEAR ENDING JUNE 30, 1919

Months	Meals and Lodging	Railroad and Street Car Fares	Livery, Bus and Drayage	Freight and Express	Excess Baggage	Miscellaneous	State Owned Trucks	Totals
July	\$336.50	\$152.88	\$453.75	\$27.95	\$19.10	\$2.05	.....	\$992.83
August	388.50	133.61	522.90	44.85	22.35	3.15	.....	1,115.36
September	251.80	130.32	394.35	36.41	35.95	5.50	.....	884.33
October	337.85	139.49	440.80	16.34	35.40	2.80	\$33.14	1,065.82
November	344.08	142.76	201.52	19.23	18.86	5.85	25.90	738.20
December	292.70	140.02	192.55	27.02	37.93	13.02	.....	703.84
January	414.50	165.51	333.63	31.90	37.42	4.15	.....	987.11
February	330.10	153.68	195.90	32.52	22.19	5.93	.....	740.32
March	324.00	169.10	251.05	27.02	32.06	9.04	.....	812.27
April	344.10	144.48	278.05	31.46	28.61	7.40	.....	834.04
May	382.45	125.53	364.55	21.44	14.77	1.35	23.98	934.07
June	304.57	102.71	365.90	14.53	22.72	10.16	25.28	843.87
Totals	\$4,141.15	\$1,700.09	\$3,992.95	\$330.61	\$327.36	\$71.00	\$108.30	\$10,672.06

FIELD INSPECTORS' EXPENSES

The above table shows an itemized summary of the expenses of the field inspectors of the department for the past year. Three items show a marked increase over the expenses for the previous year namely "Meals and Lodging", "Railroad Fares" and "Livery, Bus and Drayage". Comment was made in the 1918 report upon the fact that "Meals and Lodging" expense had increased over 15% and "Livery, Bus and Drayage" expense had increased over 12½% as compared with the figures for 1917. This year shows a further increase of more than 20% and 12½% respectively over 1918. There is also an increase this year of almost 36% in the cost of railroad fares with less actual mileage travelled.

These increases are, of course, easily explained when the general upward trend of prices and the three-cent per mile railroad fares are remembered.

In October and November, 1918, and in May and June, 1919, State truck No. 1 was in use and the livery charge for this period is greatly reduced, a total expense of \$127.48 appearing for the truck as contrasted with what two inspectors would have spent for livery and drayage had they been working under the old plan.

LEGISLATION

During the 1919 session of the legislature this department endeavored to have the following provisions enacted into law.

A minimum salary for city sealers of \$500.00 per annum.

All special contracts mentioned in Section 1667 of the statutes to be written. (These special contracts refer to sales other than by net weight or the standard ton of 2000 avoirdupois pounds).

A standard of 128 cubic feet for a cord of wood.

The net weight or measure of retail sales to be marked upon the package or a sales slip accompanying it.

The approval of the State Superintendent of Weights and Measures to be necessary when city sealers are appointed.

The State Superintendent of Weights and Measures to have power to remove from office, for cause, city sealers after notice and opportunity for hearing.

City sealers to submit to state department quarterly instead of annual reports.

Typographical error in last sentence of subsection 2 of Section 1661 to be corrected by transposing the words "or" and "sold".

Subsection 1 of Section 1661 to be corrected by eliminating the provision for state census records in determining those cities to have city sealers.

The last four provisions only survived and became law-being Chapter 152, laws of 1919.

It is very unfortunate that the provision for a minimum salary for city sealers was not enacted into law. This department has realized for a long time that the salaries paid for this very important work in

many of our cities have been entirely inadequate and it was for the purpose of remedying the situation somewhat and providing enough compensation so that at least a portion of the work might be properly taken care of that this bill was introduced. It is to be hoped that those of our cities which are now paying such ridiculously low salaries to their local sealers as from one to two or three hundred dollars a year will realize the importance of proper weights and measures supervision and will raise the salaries to a point where a man can afford to give a reasonable amount of time to the discharge of his duties. It is impossible for a man receiving a mere pittance for his services to maintain a proper interest in his work and there is a pronounced tendency in the smaller cities to resign and seek more lucrative employment. It is also becoming increasingly difficult to secure men of suitable qualifications to fill vacancies when they occur in those cities paying an extremely small salary.

The need for suitable track-scale-testing equipment in Wisconsin is as great as ever but owing to conditions at this time it was deemed inadvisable to present the matter at this session of the legislature. It is to be hoped that conditions will be more favorable two years hence and that this phase of our work may then receive the attention it deserves. The only track scale testing performed this year in Wisconsin (except such work as was done by the carriers themselves) was that of three elevator scales in Milwaukee and one in La Crosse. This work was done by Mr. Fell of the Bureau of Standards with Bureau of Standard Test Cars 3 and 4, your chief inspector being present in both cities. These tests emphasized the need for systematic work of this kind throughout the state, two of the four scales tested being in poor condition and the other two showing considerable variation although they were within tolerance.

NEW STATE DEPARTMENT EQUIPMENT

During the year ten 25 pound weights were purchased for the use of the state inspectors. The possession of such a weight makes it unnecessary for the inspector to make use of the "build-up" system to provide a maximum load for scales of between 20 and 50 pounds capacity. Their use also simplifies the testing of scale beams whose maximum graduations lie between 20 and 50 pounds. So far these weights have only been supplied to the two trucks in order not to complicate the transportation problem for those men dependent upon trains and hired conveyances.

All of the inspectors have now been supplied with 2 ounce liquid measures which nest with the set already in use. These two ounce measures are for use when testing glass graduates, the principle being to avoid using a graduate to test a graduate whenever possible. Their use will undoubtedly increase the accuracy possible in the testing of graduates in the field.

Two five-gallon field standards for use with the two trucks have also been provided as discussed elsewhere in this report.

NEW REPORT FORMS

During the year a new form of weights and measures report and a new form of weekly summary of work done have been adopted. The basic idea in changing the weights and measures report form was to show more clearly and definitely just what the inspector did at any particular place of business. It provides for a complete description of each scale, weight or measure examined and permits of the subsequent identification of each piece of equipment should the need arise. In the weekly summary, instead of dividing the work done into a large number of overlapping classes where the results are confusing by reason of this overlapping feature, the division of scales is made into four classes only, on the basis of capacity, and one grouping only is made for each of the following: weights, linear measures, liquid measures, dry measures.

The change to the new forms was made May 1st and in the two months during which they have been used they have given entire satisfaction. In the one case greater detail is supplied making a definite detailed record of all work done; in the summary all the necessary information is given in a simple manner incapable of misinterpretation.

In compiling the mechanical summary of the department's work three sets of tables have been prepared: the first showing work from July 1, 1918, to April 30, 1919, inclusive, based on the old report forms; the second from May 1, 1919, to June 30, 1919, inclusive, based on the new report forms; and the third showing the entire year's work according to the new method of reporting, the figures of the first set having been re-distributed.

FIFTY POUND BARLEY STANDARD

Through the field inspectors of the department additional work along the lines of buying grain according to the legal weight per bushel as established by Statute has been performed, particularly in the western part of the state. A prosecution was started and successfully concluded against one grain buyer for buying barley on the basis of a fifty pound bushel. The practice, as recommended by this department, of buying grains by the hundred pound unit instead of the bushel, is growing in a very encouraging manner. The main difficulty seems to be in overcoming an old established custom and in getting all of the buyers in a particular locality to buy on the same basis. Where the hundred weight plan has been given a trial it appears to meet with general approval.

NATIONAL CONFERENCE ON WEIGHTS AND MEASURES

The chief inspector attended the national conference on weights and measures held at the Bureau of Standards, Washington, D. C.,

May 21-24. This was the first conference held since 1916. A varied and helpful program was carried out. The most important subject discussed was that of liquid measuring pumps; and a set of tentative specifications and tolerances, prepared by Mr. Schlenk of the Bureau, was submitted to the conference. These were adopted conditionally, with the understanding that comments, suggestions and criticisms were later to be submitted to the tolerance committee from all parts of the country as experience with the practical operation of the new regulations should dictate. This committee will then prepare and submit to the next conference a proposed final set of specifications. Our present specifications on liquid measuring pumps are sadly deficient—in fact we can hardly be said to have any at all. With the ultimate general adoption of uniform and complete specifications governing the construction, installation and maintenance of liquid measuring pumps it may be confidently expected that this hitherto troublesome group of measuring appliances will be properly regulated, that the faulty equipment will be weeded out and that future installations of pumps will attain a standard for accuracy far above anything which the majority of our present pumps are capable of reaching.

COMMENTS ON STATE INSPECTOR'S REPORTS

A review of the annual reports sent in by the individual state inspectors reveals the fact that the inspectors are unanimous in making certain statements, chief of which are that there is apparent a gradual improvement in the mechanical condition of the equipment examined, that liquid measuring pumps remain one of the most troublesome classes of equipment, that the general sentiment of the merchants throughout the state toward the work of the department is one of approbation and that the use of state-owned trucks by the field inspectors marks a distinct advance in our methods of work.

The improvement in the mechanical condition of equipment is variously accounted for as resulting from consistent educational work among the merchants or from actual demonstrations by the inspector as to the proper methods of adjusting and caring for weighing and measuring devices. Faulty installation seems to be blamed for the bulk of the measuring pump trouble. The favorable sentiment toward the work of the department is credited to the constructive work being done and to the realization on the part of the merchants and the public that both are being served impartially. The approval by the inspectors of the use of state-owned trucks comes both from those who have worked with the outfits we have and also from the others who are working with hired conveyances but who realize how advantageous the use of a truck would be in their territories.

Several inspectors commented upon the public sentiment which seems to be growing in favor of a more frequent inspection—one every six months at least. It was also reported by one inspector that the coal dealers in his territory had expressed dissatisfaction with

the department because of its inability to test railroad track scales.

The higher type of new equipment which is being purchased now as contrasted with conditions a few years ago was mentioned but the qualification appeared that even yet there was altogether too much new equipment which was out of adjustment, or which for other reasons did not come up to the legal requirements.

INSPECTION OF WORK OF CITY SEALERS

During the year the work and equipment of the city sealers in Waukesha, Racine, Kenosha, Janesville and Portage were inspected. This work was part of the general plan of the chief inspector to visit all of the city sealers as soon as possible. This plan has been seriously interfered with by reason of a four months leave of absence and various special duties such as those occasioned by the legislative session, so that comparatively few cities have been reached. It is hoped that after another year this work may have been completed in each city having a city sealer.

In all cases it has been necessary to adjust some of the weights tested but the variations from standard have been small and are to be accounted for as a result of natural wear through use. In some cases recommendations have been made for the purchase of additional equipment where such was found to be necessary or desirable.

STATE AND CITY PERSONNEL

At present there are two cities in which the office of city sealer is vacant, Janesville and Stevens Point. The resignation of Mr. Walter Helms, the Janesville sealer, was effective June 30, 1919. Mr. E. H. Flentie, the sealer of Stevens Point resigned during the winter when the salary of his office was cut from \$660.00 to \$100.00 per annum. This move on the part of the city of Stevens Point was a decided retrogression and it is to be hoped that the council will reconsider their action and place the salary of the city sealer at a point which will make it possible for the duties of the office to be efficiently discharged.

In the city of Oconto Mr. P. T. Meenwsen, the city clerk, has been appointed city sealer to succeed Mr. B. M. Mulvaney, resigned. Mr. P. E. Lunney has been appointed sealer of Chippewa Falls, which city was without a local sealer for a considerable period.

There have been no changes in the personnel of the state department's inspectors during the year.

CONCLUSION

In view of the facts and figures submitted in this report I think it may be safely said that the department of weights and measures is

in a healthy condition; that it has grown since last year; and that it promises increased growth for the future. I believe that this department and the city sealers throughout the state are doing a most important work, the value of which is being more fully recognized by the people of the state each succeeding year. But I believe as well that there is an opportunity for improvement; and if this report contains criticism it is meant to be constructive and criticisms are made so that the errors may be corrected. And as firmly as I believe that we are not perfect and that there is room for improvement, just as firmly do I also believe that we are going to improve and keep on improving, until we approximate, at least, our ideal.

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