

TWENTY-FIFTH ANNUAL REPORT  
OF THE  
**STATE DAIRY COMMISSIONER**

TO THE  
GOVERNOR OF THE STATE OF IOWA

FOR THE YEAR 1911

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W. B. BARNEY  
STATE DAIRY COMMISSIONER

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1911

## LETTER OF TRANSMITTAL

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TO HIS EXCELLENCY, B. F. CARROLL,

Governor of Iowa.

Sir:—In compliance with the law, I have the honor to submit herewith the twenty-fifth annual report of the Dairy and Food Commissioner.

W. B. BARNEY,

Dairy and Food Commissioner.

Des Moines, November 10, 1911.

EXPENSES OF THE DAIRY DEPARTMENT OF OFFICE OF DAIRY  
AND FOOD COMMISSIONER FOR THE YEAR ENDING  
NOVEMBER 1, 1911.

OFFICE OF STATE DAIRY AND FOOD COMMISSIONER.

W. B. Barney ..... Commissioner  
B. C. Iliff ..... Deputy Dairy Commissioner  
O. P. Thompson ..... State Dairy Inspector  
J. J. Ross ..... Asst. Dairy Commissioner  
T. A. Clarke ..... Asst. Dairy Commissioner  
G. H. Teller ..... Asst. Dairy Commissioner  
P. W. Crowley ..... Asst. Dairy Commissioner  
H. E. Forrester ..... Asst. Dairy Commissioner and Food Inspector

Commissioner's salary .....	\$2,373.34	
Commissioner's expense .....	375.87	
	<hr/>	\$ 2,749.21
Deputy's salary .....	\$1,613.34	
Deputy's expense .....	89.68	
	<hr/>	1,703.02
*Dairy Inspector's salary and per diem.....	\$ 706.65	
*Dairy Inspector's expense .....	476.11	
	<hr/>	1,182.76
Asst. Commissioner's salary.....	\$1,400.00	
Asst. Commissioner's expense .....	942.78	
	<hr/>	2,342.78
Asst. Commissioner's salary .....	\$1,400.00	
Asst. Commissioner's expense .....	1,009.37	
	<hr/>	2,409.37
*Asst. Commissioner's salary .....	\$ 617.76	
*Asst. Commissioner's expense .....	402.72	
	<hr/>	1,020.48
*Asst. Commissioner's salary .....	\$ 617.76	
*Asst. Commissioner's expense .....	410.63	
	<hr/>	1,028.39
*Asst. Commissioner and Food Inspector's salary and per diem .....	\$ 640.00	
*Asst. Commissioner and Food Inspector's expense...	491.22	
	<hr/>	1,131.22
Clerk hire (Dairy and Food).....	\$ 966.68	
Clerk hire (Dairy and Food) .....	900.00	
	<hr/>	1,866.68
Janitor hire (Dairy and Food) .....	\$ 780.00	
	<hr/>	780.00
Milk agent's fees .....	\$2,148.00	
Milk agent's expense .....	28.43	
	<hr/>	2,176.43
Office expenses .....	301.05	
Express, freight and cartage .....	174.25	
Telegraph and telephone .....	116.57	
	<hr/>	\$ 18,982.21
Less salaries which are not paid from the Dairy Ap- propriation .....		11,835.53
		<hr/>
		\$ 7,146.68

\*Does not include a complete year.

## REPORT OF COMMISSIONER

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The law creating the office of State Dairy Commissioner requires an annual report to the governor of the state covering the dairy business of the state. Later enactments make this department responsible for the enforcement of the following laws:

PURE FOOD LAW,  
PAINT AND LINSEED OIL LAWS,  
TURPENTINE LAW,  
WEIGHT AND MEASURE LAW,  
CONCENTRATED FEEDING STUFFS LAW,  
CONDIMENTAL STOCK FOOD LAW,  
AGRICULTURAL SEEDS LAW.

The foregoing statement of expenses of this department includes the salary of the commissioner, the deputy commissioner, the state dairy inspector, the four assistant dairy commissioners, the assistant dairy commissioner and food inspector, and the clerical help in both the dairy and food departments. The janitor, though paid by this department, does the work in the Veterinary Department.

The last legislature wisely authorized the employment of two more assistant dairy commissioners and transferred the state milk inspector to the dairy department. They made his title state dairy inspector. These changes were recommended by this department and it is most gratifying to us to be able to have a force of sufficient size to care for the work in a way that will prove both profitable to the dairy interests of the state and acceptable to the general public.

Our work with the Thirty-third General Assembly as President of the Iowa State Dairy association led us to believe that about the only way this department could get the additional help they so much needed was by the enactment of a license law that would bring revenue to the state that would pay a large portion of the salary and expense of the extra help.



As the state dairy inspector is authorized to do work over the entire state, we recommended that the milk license law effective in cities of 10,000 population or more be made to apply to all municipal incorporations, which would materially increase the revenue from this source.

As a great share of the time of the assistant dairy commissioners is spent looking after the interests of the creameries and cream buyers, we advised the enactment of a law requiring operators of the Babcock test for testing milk or cream for purchase, to take out a license for which they shall pay \$2.50 per annum.

The operator of the test is required to pass an examination to show that he or she is competent and qualified to properly use the test. At first thought, it was not the intention of this department to require the older creamery men and buttermakers to take this examination, but after due consideration we concluded that we would never know where to stop if we extended any favors of this kind. We have, therefore, required all applicants for license to take the examination. It may be of interest to know that of the 2,400 applicants more than 300 did not qualify on being examined the first time. Many of these have posted up and have since taken another examination, with the result that they have been issued a license. About forty applicants have not qualified. Only a small percentage of the applicants from whom we have withheld licenses are buttermakers.

For the purpose of enabling applicants for these licenses to take the examination with the least possible expense, one of the assistant commissioners has visited at least one accessible point in each county in the state to give examinations. Many counties have been visited *two or three times*. Much of benefit in an educational way was derived from these examinations, and the need of information on the proper use of the Babcock test was appreciated by the commissioners giving the examinations. At their suggestion and the earnest solicitation of many of the operators, Bulletin No. 6, giving full and complete instructions for the operation of the test was issued under date of October 15th, and may be secured from this department upon request.

This law has a provision whereby the commissioner may revoke any license issued under the law. This we believe one of the most helpful provisions of the act.

A very large portion of the time of the dairy assistants during the summer has been taken up giving examinations. This will not

have to be gone over again next year. There are only a few more to be given and from this time on our assistants will be at liberty to take up their regular work. If a creamery secretary or butter-maker cannot get service out of one or more of these men to the amount of \$2.50 per year, it will be their fault or neglect in not asking for this help.

Fifteen or more new creameries have been started in the last year, and five or ten that had closed for want of business have been reopened. Where opportunity has been offered this department has assisted in organizing. We regret that in some instances, these creameries have been organized under what is known as the "promotion plan" at an expense anywhere from \$1,000 to \$2,000 in excess of what they would have cost had they taken the matter up with this department. We are at all times ready and willing to send an assistant commissioner to help perfect organizations of this kind, and see that they are equipped with plans, by-laws, etc. When the building is finished the equipment can be bought on the open market at any of the supply houses.

We have experienced no little trouble in getting the people of the state to understand that we were willing to aid them in this work of organization. In many cases they have learned this too late or after they had made their contract with a promoter. We deplore the fact that in not a few instances they have been given obsolete equipment in place of that which is up-to-date.

We think we are making a conservative estimate, when we say that more dairy sires have been placed at the head of the dairy herds of the state in the last two years than in the ten years previous.

Little improvement in our butter production could be expected until some change from our former methods could be brought about. For a number of years the average per cow in Iowa has been 140 pounds of butter fat. The fact that for twenty-five years practically no dairy sires were introduced in the state, we believe one of the best reasons that there has been no improvement in our dairy cows. Within the next few years as the heifers sired by these dairy sires come in milk, we expect to see the average per cow materially increased. The high land valuations have brought about a condition that makes it out of the question for the producer of beef to make money on scrub stock or anything but cattle bred for this purpose. Our people have been a long time in awakening to the fact that this same economic principle holds good in breeding cattle for the dairy.

## CITY MILK INSPECTION.

I am pleased to report that the last General Assembly passed laws that are of material benefit in the prosecution of this work, particularly that section granting this department the power to refuse a milk license to those deemed unworthy, and to revoke a license once granted when the terms thereof have been violated. While this power has been exercised to a very limited extent, it serves as a "big stick" and as such is of undoubted benefit.

Along the lines of further legislation for this department, I would recommend that a law be passed defining more explicitly who are milk dealers. I would also reiterate the statement made in my last report, advising that the pay for local milk inspectors be increased. The new law requiring milk dealers in all the smaller towns to pay a license as well as those in the cities is also an equitable one, as well as that section requiring that the name of the dealer or dairy be printed on the wagon. The policy of insisting that the cities appoint local milk inspectors before we appoint a state milk inspector we are convinced is proper and shall continue.

The most common form of adulteration found is that of skimming the night's milk, this having set for a sufficiently long time before delivered to allow the cream to raise. The most flagrant violation of the milk law we find is among the restaurants, cafes and hotels in that they are in the habit of storing milk in upright coolers with a faucet at the bottom, from which the milk is drawn and the customer is served with poor milk. Many prosecutions have been made along these lines and we believe much good has been accomplished thereby. In some of these cases the law was not willfully violated, but in others, the milk would be drawn off and sold by the glass until the cream is reached, when this would be drawn into pitchers and used as cream. In some instances these restaurants were buying milk as low as sixteen cents per gallon and a gallon of milk will, as ordinarily served, make sixteen glasses. At five cents per glass it will be at once observed that the dispensers were making a profit of 500 per cent., which should be ample. In some instances they are serving milk in one-half pint bottles, the same having been bottled at the dairy and all samples of milk secured by the inspectors of this department when thus handled have

proved to be of good quality, and we heartily recommend this way of retailing milk.

The muck-raker and the yellow journal have no place in dealing with the milk question. Unreasonable and adverse criticism of the local milk supply tends to markedly increase the consumption of condensed milk, the public having the erroneous impression that they have a much more sanitary and healthful product and ignoring the fact that it comes originally from the same old cow. It is our policy to educate the milkman along sanitary lines rather than to prosecute him for ignorant violation of the law.

I have in mind one specific instance where a milkman was selling milk in one of our larger cities and was visited by our State Dairy Inspector several months since. The barns were devoid of windows, uneven and broken plank floors, ventilated only by the cracks between the boards of the unpainted side-walls and roof, cob webs hanging all over the inside, in short, unsanitary to a marked degree. Eighty cows of all sorts except good ones with long hair matted with filth. He complained that it was hard for him to make good milk, impossible to keep good help, and that he was making no money. Upon advice of the Inspector he later visited the dairy districts of Wisconsin, inspecting the dairies and their methods and upon his return home he built a modern, sanitary barn with cement floors, windows galore, an automatic system of ventilation and a silo, bought a few full-bloods and the balance of his herd grade cows of this same breed. Upon a recent subsequent visit by this inspector on a cold winter's day, it was his pleasure to observe the uniformly dairy type and the contented and thrifty condition of the cows. This dairy-man said: "I have solved the labor question. Good men stay with me now, it is a pleasure to run this dairy, and my wife says I spend my leisure hours out here with the cows, and last but not least I am now making it pay." This is only one among many similar instances that might be cited.

Some improvement has been made in the quality of milk sold, as well as in the sanitary condition of the dairies, but much more remains to be done, and I feel that the most good can be accomplished along educational lines—for as among dairymen of all classes the producer of milk to be sold and consumed as such, there is a tendency to fail to appreciate the importance of strict sanitation and that milk is a food consumed largely by invalids and children of tender years, and that clean, sanitary milk cannot be produced in a filthy and unsanitary barn. The cow gives clean, almost

germ-free milk, and when milk is otherwise it should be charged to the failure of human intelligence or willful carelessness on the part of man.

The most marked defects of dairy barns in this state is the lack of sunlight in the barns and proper ventilation. There are but two requisites for the production of pure milk. The first is to keep dirt out of the milk, and the second is to cool it as quickly as possible after milking and keep it cooled below fifty degrees Fahrenheit. The first excludes bacteria, and the second prevents the growth or multiplication of those few that may have found lodgement therein, with the exception of the one bacteria that is the bane of the milkman—the bacillus lactis viscosus, which multiplies only after the temperature of the milk has been reduced to fifty degrees Fahrenheit or below. This bacteria causes milk to present a slimy, ropy, greasy and repulsive appearance, and the housewife erroneously attributes this condition to the fact that the cows are sick and the milk extremely dangerous as human food. It is unfortunate that some of the dangerous germs like those of tuberculosis or typhoid should not manifest themselves as plainly as does this one.

Table showing the number of milk licenses issued to city milk dealers for each year from 1904 to 1911. In each case the year ends on July Fourth.

	1904	1905	1906	1907	1908	1909	1910	1911
Number.....	780	827	803	1006	1078	1149	1106	1310

Cities	Population	Inspectors
Boone .....	10,347	
Burlington .....	25,741	M. E. Flynn
Cedar Rapids .....	32,811	Phil Pray
Clinton .....	25,577	
Council Bluffs .....	29,292	Peter Smith
Davenport .....	43,028	H. J. High
Des Moines .....	86,368	J. Howard Sasseen
Dubuque .....	38,494	F. J. Kennedy, D. V. S.
Fort Dodge .....	15,543	D. C. Benjamin
Keokuk .....	14,008	W. P. Sherlock, M. D.
Iowa City .....	10,091	C. S. Chase, M. D.
Marshalltown .....	14,000	J. A. Turner
Mason City .....	11,230	A. L. Wheeler, M. D.
Muscatine .....	16,178	John Tillie, D. V. S.
Ottumwa .....	22,012	B. W. Van Der Veer
Sioux City .....	47,848	E. C. Pape
Waterloo .....	26,693	W. W. Wyant

## CARE OF MILK AND CREAM.

No articles of our diet are more benefited by cleanliness and low temperature than the products of the cow. Probably no other food products are so easily contaminated or become such a harbor for disease producing bacteria as milk and cream kept at high temperatures. Thus it is very important for the producer, as well as the wholesaler and retailer, to be provided with the proper facilities for reducing and holding down the temperature during the warm summer months.

The loss on butter each year, due to the stale and deteriorated condition of the cream from which it is made, reaches far past the million dollar mark. This poor quality of butter has become so marked during the past few years that several states have seriously considered the passing of stringent laws to regulate the quality of cream which may be sold for butter-making purposes. So long as the farmer gets no more per pound for clean, sweet cream than for an old, stale article, there is no incentive for him to improve the quality of his product.

In view of the fact that just such conditions existed in the state of Iowa, the Dairy and Food Commissioner made the following ruling on March 15, 1911:

"The Dairy and Food Commission of the State of Iowa will use every means to bring about the grading of cream and paying therefore according to quality or grade. The best interests of dairying in this state demand that this system be adopted, and the following grades are hereby established:

**SPECIAL GRADE CREAM** is hand separator cream showing not more than .15 per cent. acidity, free from bad odors, not over two days old in warm weather and not more than three days old in cold weather and testing 25 per cent or above;

**FIRST GRADE CREAM** is hand separator cream reasonably sweet, free from bad odors, not over three days old in warm weather and not over four days old in cold weather, and testing 25 per cent or above;

**SECOND GRADE CREAM** is cream not reasonably sweet, over three days old in warm weather and over four days old in cold weather, is not of good flavor, hand skimmed and water separated, and testing less than 25 per cent butter fat."

## COOLING CREAM AND MILK BY USING WATER.

The principle of keeping cream in good condition is to produce as clean cream as possible by having clean milk; by having all utensils with which the cream comes in contact thoroughly cleansed; by the proper cooling of the cream as soon as possible after separation, and the holding of it at as low a degree of temperature as fresh well water will allow.

Milk, to be kept or sold as such, should be cooled as soon as drawn, but if separated, the cream should be cooled immediately after the separation has taken place. Fresh cream should never be added to that of a previous separation until it is cooled to the same temperature.

One ideal way of keeping cream cool is to have a small tank into which the water is pumped; place this tank between the pump and the stock tank so that all the water pumped from the well must pass through this small tank. Put the cream in shotgun cans and place them in this tank and arrange to have the water in the tank two or three inches higher than the cream. Cuts 1 and 2 and 3 show a very desirable arrangement to facilitate the carrying out of this idea.

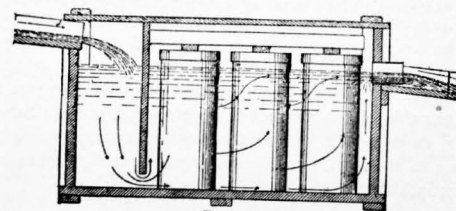
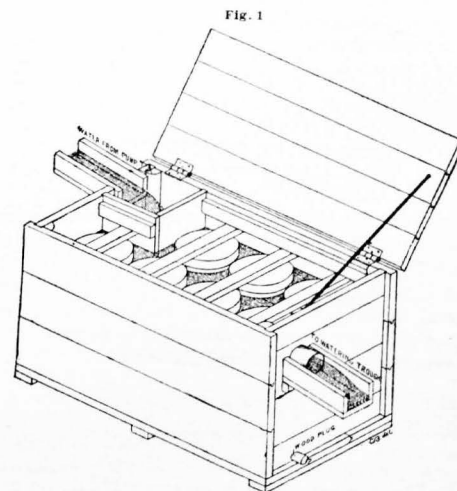


Fig 2

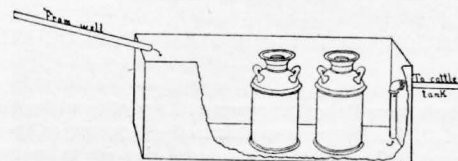


Fig. 3

Most any tank can be used for this purpose whether wood, concrete or galvanized material. It is always better to have some sort

of a milk house to place the tank in to protect the cream cans and cooling water from the sun and hot winds in summer and the frost and storms in winter.

### PUT UP ICE ON THE FARM.

Most any kind of building will serve the purpose of a cheap ice-house to store ice for home use. Anything that will keep the sun and rain out will do. A cheap ice house could be constructed in the corner of a shed or against another building. All that is necessary is to provide some drainage and cover the house on all sides, top and bottom with about 12 inches of sawdust or 24 inches of hay or cut straw and protect the covering from the weather.

### YEARLY TESTS.

We are pleased to announce that W. W. Marsh of Waterloo, Iowa, has continued for another year his offering of \$1,000.00 for yearly tests to be conducted by the Iowa State College under the supervision of the Iowa Cow Culture Club. The work being done this season is really of more value than that of previous years for the reason that this Marsh Contest is encouraging quite a number of fellows to make yearly tests of their cattle, a thing which has not been done in the past, but is a thing which really means more to the dairy industry of the state than anything else.

### NORTH IOWA DAIRY IMPROVEMENT ASSOCIATION.

The North Iowa Dairy Improvement Association under the leadership of G. W. Patterson as dairy expert is now on its second year's work. The objects of the association are to improve the quality of the product and to increase the production of the cows. Much has been done to improve the quality of the cream delivered to the creameries. The dairy expert has a complete check on 9,004

cows or 727 herds. The following shows the record of the first ten herds, the average production being the amount of butter fat brought to the creamery:

Herd.	Av. No. Cows.	Av. Prod.
1.....	15	.....285
2.....	9½	.....263.6
3.....	10	.....255.5
4.....	12½	.....249.4
5.....	6	.....238.6
6.....	4¾	.....237.8
7.....	4	.....232.7
8.....	14¾	.....229.4
9.....	15½	.....227.4
10.....	9	.....224.8

The foregoing figures show quite conclusively that the association is doing a great deal of good in improving the producing ability of the individual animal.

There is no valid reason why other associations should not be formed throughout the state. The Dairy and Food Commission stands ready at all times to assist in organizing new associations and to assist them in any way after the organization. The increasing demand of the consuming public for more and better dairy products should stimulate the producer along the lines of better dairying.

### ICE CREAM.

Realizing the importance of the ever growing ice cream industry in the State of Iowa, we feel that any efforts made on the part of the Dairy and Food Commission in stimulating the manufacture or improving the quality of this product is energy well directed. For many years the buttermakers have received aid from the State Fairs, Dairy Associations and Experiment Stations through contests and short courses, for the purpose of increasing their efficiency and making their finished product more salable. These sources of education have been of untold benefit to the buttermaker, and it is only reasonable to assume that the same avenues of information would be equally as beneficial to the ice cream maker. The ice cream industry has increased tenfold in as many years; where once consid-



ered a luxury it is now almost a necessity, and where once manufactured in a wholesale way only in the larger cities, is now so manufactured in nearly every city and hamlet in this and other states.

The increased consumption and manufacture of ice cream has led the department to take two steps: First—The adoption of an ice cream standard; Second—Furnishing assistance to those starting in the manufacture of ice cream and to those who wish to improve their product.

Our assistant has found in the work he has done so far with the ice cream makers that there are several respects in which the makers could improve their methods in order to secure uniformity of product and decrease the cost of production. The cream used in ice cream should be of known richness or per cent, consequently all of the cream should be standardized, for only through using cream of uniform standard can uniformity be secured in the finished product. Not only to secure uniformity of product, but to put the maker on the safe side of the ice cream standard should the raw cream be standardized. It also enables the manufacturer to know to the cent what the cost of the raw materials is.

A simple method for standardizing and one that can be applied by any maker is the "Square Method." It can be applied to any problem which may come up. For example, the cream you wish to standardize tests 39 per cent and the milk on hand tests 3.7 per cent., how much cream and how much milk will it be necessary to mix in order to get a 20 per cent cream?

$$\begin{array}{r} 39 \qquad 16.3 \\ 20 \qquad 20 \\ 3.7 \qquad 19. \end{array}$$

In the center of the square place the per cent. to which it is desired to standardize, at the upper left hand corner place the figure representing the richness of the cream used, and at the lower left hand corner place the per cent. of fat in the milk. In order to get the amount of each to use in standardizing, all that is necessary to do in order to get the proportions is to simply subtract the 20 from the 39 giving 19, or the parts of milk necessary to use, and from 20 subtract 3.7 leaving 16.3, the number of parts of cream to use with 19 parts of milk. From this we see that in order to produce 20 per cent cream from 39 per cent cream and 3.7 per cent milk, it is necessary to use for every 16.3 pounds of cream, 19 pounds of milk, giving a total of 35.3 pounds of 20 per cent cream.

From this proportioning, it is possible to work any problem in standardization. If you wished 400 pounds of 20 per cent cream and had 39 per cent. cream and 3.7 per cent. milk to make it from, it is necessary to divide 400 by 35.3 which will give a factor with which to multiply the number of pounds of cream and milk required to make 35.3 pounds of 20 per cent. cream, the sum of which will give 400 or 400 pounds of 20 per cent. cream.

Another example using the same figures: Suppose you had 59.5 pounds of 39 per cent cream and wished to know how much 3.7 per cent. milk would be required to reduce it to 20 per cent. This can be determined by dividing 59.5 by 16.3, the amount of cream used for every 19 pounds of milk, giving a factor which multiplied by the 19 will give the number of pounds of milk to use.

Some will ask, "How is this method used in standardizing cream with skimmed milk?" The method is just the same, the skimmed milk being figured as zero per cent.

$$\begin{array}{r} 39 \qquad 20=20-0 \\ 20 \qquad 19=39-20 \\ 0 \end{array}$$

The proportions are the same as before for every 20 parts cream 19 parts skimmed milk are required to reduce it to 20 per cent.

It sometimes may occur that creamerymen may want to know how much skimmed milk it will be necessary to remove from an amount of whole milk in order to get a 20 per cent cream. The square method still holds good except the proportions are a little different. Given 3.7 per cent milk to reduce to 20 per cent cream:

$$\begin{array}{r} 3.7 \qquad 20 \\ 20 \qquad 16.3 \\ 0 \end{array}$$

16.3 pounds of skimmed milk must be removed from each 20 pounds of 3.7 per cent. milk in order to get 20 per cent. cream.

Along this same line, a large number of the makers called upon have asked the question, "What must the cream used in ice cream test so that when it is made up the ice cream will come up to the required standard?" The sugar, flavoring material, and filler added to the cream adds weight to the mix—consequently, a reduction of the percentage of butter fat. Just how much the cream will be reduced depends upon the amount of ingredients added.

A rule that can be followed to determine the percentage of cream which must be used in order to conform to the standard, is as follows: Multiply the weight of the mix by the percentage of butter fat desired in the ice cream and divide this by the number of

pounds of cream used in the mix. To illustrate—suppose the mix consisted of 44 pounds of cream, 8 pounds of sugar, 4 ounces of filler, and four ounces of flavor, making a total weight of 52.5 pounds for the mix. In order to be on the safe side, at least a 12.5 per cent. ice cream should be made.

$$52.5 \times .125 = 6.56 = \text{pounds of butter fat,}$$

which must be contained in the mix, or pounds of fat in the original cream. By dividing 6.56 by 44 we get .149 or 14.9 per cent, the test of the cream which must be used in the mix to give a 12.5 per cent ice cream.

A large number of the makers visited bought their cream by the gallon and were paying prices equivalent to 41 to 55 cents per pound butter fat. This cream was bought on the supposition that it tested 18 to 24 per cent. In a great many instances the test fell considerably below these marks. From these observations, it seems that buying cream by the gallon unnecessarily increases the cost of manufacture since sweet cream could be had very generally over the state at prices ranging from 2 to 10 cents above market quotations for butter to 40 cents per pound butter fat. Where butter fat was bought, 40 cents was the highest price paid.

Several makers in making up their ice cream used these supposed tests as a basis in standardizing their cream and were surprised that their ice cream did not test as much as they had thought. From this, we are led to believe that the ice cream makers who have been buying cream by the gallon would do well to pay by the test.

By standardizing the cream for ice cream making the guess work can be eliminated and by paying for cream by the test the cost of manufacture should be reduced.

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### DAIRY TRAINS.

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The dairy trains that have been run over the Chicago, Burlington & Quincy, the Chicago, Milwaukee & St. Paul and the Chicago Great Western by the Iowa State Dairy Association and kindred interests during the past year, have done an enormous amount of good in stimulating the dairy industry in this state. Following in the wake of these trains we find many new silos, the disposition of

poor dairy sires and in their places we find pure bred animals with milking records in their pedigrees, and a general increase in the quality of the average dairy cow shown by a marked increase in her yearly production.

With pardonable pride, we recognize the fact that every county in Iowa is well adapted for dairy farming and any amount of work done to better the dairy conditions in this state through the press, by the railroad companies, by the State Dairy Association or by the Dairy and Food Commission will not lack for appreciation. We should be milking more and better cows than we are; we should test them and weed out the poor ones, raise the standard not only of our herds but of our products as well; we should recognize the laws of the state regulating the sanitary care of our dairies and listen to the efficient means used in disseminating the basic principles of up-to-date dairying.

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### SILOS AND SILAGE.

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The high price of concentrated feed is, at the present time, one of great importance to the dairyman. Ten years ago it was impossible to buy commercial feeds at a nominal cost, but today they have almost doubled in prices. The dairyman with pure bred stock or a fancy market may possibly make a profit by using such feed, but the average farmer must strive to raise his own grain and roughage to a large extent. Too many farmers are prone to believe that the only way to make money is to get high prices for their products and have plenty of these products to sell; but prices are not always high and the farmer does not always have a large supply on hand, so there must be some other factor entering into the profit side of dairying. It is reasonable to assume that the dairyman receiving only a fair price for his product should be able to have an income sufficient to pay him wages besides a fair net profit. Considering the present price of butter fat the well managed dairy farm should indeed be a source of wealth.

In the central west corn is hailed as the king of all cereals, forming the backbone of the rations of the majority of our farm animals. By placing corn in the silo the stalk as well as the ear is preserved, thus making the whole corn plant available for feeding purposes. Practically 40 per cent. of the feeding value of the corn plant

lies in the stalk, leaves and husks, the remainder in the ear. Therefore if only the ears are gathered, much of the remaining 40 per cent. of the crop remains in the field to bother the farmer in preparing his seedbed for the following year. As corn should be cut for the silo before the lower leaves are lost there is practically no waste. About twice the amount of dry matter can be stored in the form of silage as corn fodder. A cubic foot of hay in the mow contains about 4.3 pounds of dry matter, while a cubic foot of silage contains 8.9 pounds of dry matter. A cubic foot of space in the silo is therefore worth more than twice an equal space in the mow.

The digestive organs of animals that chew their cud are so formed as to require comparatively juicy and bulky feeds. The cow cannot thrive on dry feed as well as the horse. The ideal food for the dairy cow is green pasture but for a number of months during the year she is deprived of this feed. The best substitutions for green pasture are root crops and corn silage. As silage yields twice as much dry matter per acre as roots and does not require as much labor, silage is by far the more economical wherever corn can be raised. Silage has a laxative effect upon the animal and aids in maintaining a healthy and vigorous condition.

The population of the United States is doubling every thirty years, which means that the farms will gradually become smaller and that more feed must be produced per acre. The high price of land also demands that more intensive methods must be used to obtain a dividend in proportion to the value of the soil. Practice tells us that one acre of corn placed in the silo will yield enough feed to supply a milk cow 40 pounds of silage for 500 days or 4 cows 125 days.

Another important factor is the reduction in storage space of silage compared to that required for hay. One ton of clover hay occupies 400 cubic feet while 8 tons of silage can be placed in the same space. The clover hay contains 886 pounds of digestible nutrients while the silage contains 2,064 pounds. Thus the corn silage occupying the same space as the clover hay contains two and a half times the digestible nutrients.

Silage as a milk producer compares very favorably with the other more concentrated and more expensive feeds. Being a very succulent and palatable feed it can be very aptly termed the great substitute for pasture in the corn belt. We all look forward to the increased milk flow when the cows are turned to pasture in the spring after having received nothing but dry feed for six months. The

milk cow is a sensitive animal at hard work and should be nurtured on the best feed possible. Silage makes possible a succulent feed for winter use, spurring the appetite of the cow and causing her to relish her feed in winter as well as summer.

Several years ago at the Ohio Experiment Station the substitution of silage for grain in the ration proved very successful. Silage was used to take the place of over half the grain ration and proved to be much cheaper. The silage ration produced milk for 68 cents per 100 pounds and butter fat at the rate of 13 cents per pound. The grain ration produced milk at \$1.05 per 100 pounds and butter fat for 22 cents per pound. This made the profit from the silage ration \$5.86 per month and of the grain ration \$2.46 per month.

There is usually a time during every summer when the pastures dry up, due to lack of rain and the hot dry winds. The dairyman should be prepared at this time with some feed to stimulate the milk flow and keep it up; a soiling crop or silage are the more available crops. Soiling crops require too much time and labor for the average Iowa farmer as they must be cut and hauled every day, so this leaves silage as the remaining substitute. Chas. L. Hill of Guernsey fame says he feeds silage 365 days in the year, and that the cows relish the silage even when supplied with green pasture grass.

In constructing a silo there are many things to be considered, the most important of which are shape, capacity, efficiency, durability, cost and location. In regard to capacity the silo should be constructed with reference to the size of the herd and the length of time you wish to feed silage. Each animal will consume from 30 to 40 pounds per day, so if silage is fed for 200 days she will consume about 4 tons per year. Figuring from this, a herd of ten cows will require a 40-ton silo; 15 cows a 60-ton silo and 50 cows a 200-ton silo. The quality of silage improves as the depth increases due to the weight above. A certain percentage of mouldy silage found near the top of the silo proves that a certain weight is necessary to compress the silage and exclude the air. A silo should be at least 30 feet deep with a diameter gauged by the size of the herd. In order that silage may be fed in good condition about one and a half inches should be used from the top in winter and three inches in summer.

It is all important that silage be perfectly preserved and this all depends as to whether the silo is air-tight. There are many types of silos upon the market today and all have their advantages, the



stone, brick, tile, cement and stave silos are all used with success. In the northern section some trouble is experienced with freezing but this can be largely eliminated by tight packing and insulation of the walls. To facilitate close packing the walls must be straight and smooth on the inside and free from shoulders or abutments of any kind. The admission of air or the presence of air pockets allow fermentation to take place, which spoils silage.

The success of a silo depends first upon its strength and second upon the durability of the material used in the construction. To be durable any material must resist the action of the weather, the constant wetting, drying, freezing and thawing which take place both inside and outside the silo. During the summer the silo is generally empty and must be built exceptionally strong because of its height in order to resist storms during this season. It is desirable that the silo cost as little for repairs as possible and the one that must be constantly adjusted for shrinkage and expansion is of less value than the one that needs no such attention. The silo should always have a roof which not only preserves the silage but braces the walls at the top.

## ENCOURAGEMENT OF THE DAIRY AND BEEF CATTLE GROWING INDUSTRIES.

### Chapter 203, Acts of the 34th General Assembly:

Sec. 1. Iowa State Dairy Association. Whenever the organization now existing in the state of Iowa and known as the Iowa State Dairy Association shall have filed with the secretary of state of the State of Iowa verified proofs of its organization, the names of its president, vice president, secretary and treasurer, and that it has five hundred (500) bona fide members, such association shall be recognized as the Iowa State Dairy Association of the State of Iowa, and be entitled to the benefits of this act.

Sec. 2. Inspection—instruction. For the purpose of aiding in the promotion and development of the dairy industry of the state of Iowa, such association shall cause to be made such inspection of dairy farms, dairy cattle, dairy barns and other buildings and appliances used in connection therewith, dairy products and methods as they shall deem best and shall arrange to furnish such instruction

and general assistance, either by institutes or otherwise, as they may deem proper to advance the general interests of the dairy industry of the state.

Sec. 3. Executive committee. For all purposes of this act the said association shall act by and through an executive committee of five (5) members, consisting of the president, and vice president, of the Iowa State Dairy Association, the dean of the Iowa State College of Agriculture and Mechanic Arts, and the professor of dairying of the same institution, and the food and dairy commissioner of the state of Iowa.

Sec. 4. Inspectors and instructors—compensation—expenses. They may employ two or more competent persons who shall devote their entire time to such inspection and instruction under the direction of the said executive committee, and who shall hold office at the pleasure of the committee, and who shall each receive a salary not to exceed fifteen hundred dollars (\$1,500.00) per annum, and actual expenses while engaged in such work.

Sec. 5. Annual report to the Governor. The said association may require such reports from their employees as they shall deem proper, and shall make to the Governor an annual report of their proceedings under this act, which report shall be published as a part of the proceedings of the annual convention of the Iowa State Dairy Association.

Sec. 6. Beef Cattle Breeders' Association. Whenever there shall have been filed in the office of the secretary of state for Iowa verified proofs of the organization of the Beef Cattle Breeders' Association, together with proofs that such association has five hundred (500) bona fide members who are stock breeders or stock feeders in this state, together with the names of the president, vice president, secretary and treasurer, such association shall be recognized as the Iowa Beef Cattle Breeders' Association and be entitled to the benefits of this act.

Sec. 7. Instruction—inspection—executive board. It shall be the duty of the Beef Cattle Breeders' Association to aid in the promotion of the beef cattle industry of the state and to provide for practical and scientific instruction in the breeding and raising of beef cattle, and to provide for the inspection of herds, premises and the appliances, methods and foodstuffs used in the business of feeding for the purpose of making suggestions and demonstrations beneficial

to the business. The said association shall act by and through an executive board to be composed of the dean of the department of agriculture of the Iowa State College of Agriculture and Mechanical (mechanic) Arts at Ames, and the professor of animal husbandry of the same institution and the secretary of the State Agricultural Society, and the president and secretary of the said Iowa Beef Cattle Breeders' Association.

Sec. 8. Inspectors and instructors—compensation—expenses. The said board may employ two or more competent persons who shall devote their entire time in making inspection and giving instructions, as provided in this act under the direction of said board. Such instructors and inspectors shall hold office at the pleasure of the board and shall each receive a salary of fifteen hundred dollars (\$1,500.00) per annum and actual expenses while engaged in the work.

Sec. 9. Salaries and expenses—how paid. The salaries of all persons employed under the provisions of this act shall be paid monthly out of the appropriation herein provided and all traveling expenses and all general expenses incurred by the association in carrying out the purposes of this act shall be paid out of the said appropriation and in the manner provided by Sections 170-d, 170-e and 170-f of the supplement to the code, 1907, and upon statements filed with the executive council as therein provided; but no such bill shall be paid until after the executive committee of the board, under whose authority such expense was incurred, have audited and approved the bill upon the part of such association.

Sec. 10. Appropriation. For the purpose of carrying into effect the provisions of this act and the payment of all expenses connected therewith, there is hereby appropriated out of any fund in the treasury of the state, not otherwise appropriated, the sum of fifteen thousand dollars (\$15,000.00), or so much thereof as may be necessary to pay the salaries and expense provided for under the provisions of this act, provided, however, that of the said appropriation the sum of seven thousand five hundred dollars (\$7,500.00) shall be available for the purpose of paying the expense incurred by the Iowa state dairy association board, and the sum of seven thousand five hundred dollars (\$7,500.00) shall be available for the purpose of paying the expense incurred by the Iowa beef cattle breeders' association board. It being the purpose of this act to provide a fund of seven thousand five hundred dollars (\$7,500.00) for the

encouragement of the dairy industries and a sum of seven thousand five hundred dollars (\$7,500.00) for the encouragement of the beef cattle industry in this state.

Sec. 11. Funds not to be used for private purposes. None of the money appropriated by this act shall be used to pay the salaries or expense, or used in any manner for the private benefit of any member of the board of either of the said associations.

Sec. 12. In effect. This act being deemed of immediate importance shall take effect and be in force from and after its passage and publication in the Register and Leader and the Des Moines Capital, newspapers published in the city of Des Moines, Iowa.

Approved April 14, A. D. 1911.

#### ADULTERATED BUTTER.

During the past twelve months the usual number of Iowa creameries have been so unfortunate as to place on the market a shipment or two of butter which agents of the Internal Revenue Department have alleged to contain an excess amount of moisture. Much criticism has been registered regarding the methods of those handling this branch of the government work and the creameries interested are clamoring loudly for some relief from the methods employed by the revenue agents.

Some of these creameries complain of the manner in which the samples are taken and also allege that they are not given any chance to make a defense but have been compelled to pay the penalties assessed without any hearing on the subject.

The creameries have generally adopted the plan of testing every churning for moisture and most of the factories have taken every precaution to guard against incorporating enough moisture to cause their butter to be classed as adulterated. Under the present administration of the Department of Internal Revenue, the creameries are constantly facing the danger of having to pay extreme penalties for incorporating moisture in excess of the standard arbitrarily fixed by the Internal Revenue Department. It is of the utmost importance to the creameries of Iowa that some change be made in the federal law relating to the manufacture of adulterated butter or that some rulings of the Commissioner of Internal Revenue be so modified as

to insure fair treatment where creameries are charged with the manufacture of adulterated butter.

The penalties range from \$100 to \$750 for a single churning of butter and it is our belief that the greatest care should be exercised by those having the enforcement of the federal laws where the penalties as so severe as in some instances to cause the plant to suspend operations.

### CHEESE.

The manufacture of cheese has shown a slight decrease during the past year and the amount reported by these factories is 224,424 pounds. Very little interest seems to be exhibited in the manufacture of cheese and there seems little hope of increasing the number of factories in this state.

With the increased assistance given this department by the last legislature, we can, perhaps, give a little more attention to the cheese factories than has been possible during the past and we can possibly make those factories now in operation more profitable to the producer.

The quality of Iowa cheese has never been such as to command a high premium and this is no doubt one of the reasons that more communities have not engaged in the manufacture of cheese.

### THE PRICE OF BUTTER.

The attached table gives the average price of western extra creamery butter in the New York market for each year since 1900. The average price for the twelve months ending Nov. 1, 1911, was 26.13, this being about 4 1-2 cents less per pound than the price for the previous year. The low average is due to an accumulation of poor butter which was thrown on the market in the spring of 1911. Much of the butter stored during the previous summer was not of the best quality and was bought at a price which prevented its being sold at a profit.

The owners of this butter in the hope of receiving a price which would enable them to sell without loss waited until the beginning of the new butter season before disposing of their holdings. The unloading of this large amount of poor butter during the spring months demoralized the butter market to such an extent that prices remained at a low figure until the dry weather began to reduce current receipts of fresh butter.

The butter market has apparently recovered a normal condition and the prices are at present high enough to return the producer a good profit if he has the right kind of dairy cattle.

SHOWING AVERAGE MONTHLY PRICE OF EXTRA WESTERN CREAMERY BUTTER IN NEW YORK MARKET.

Month	Twelve months ending Nov. 1, 1900	Twelve months ending Nov. 1, 1901	Twelve months ending Nov. 1, 1902	Twelve months ending Nov. 1, 1903	Twelve months ending Nov. 1, 1904	Twelve months ending Nov. 1, 1905	Twelve months ending Nov. 1, 1906	Twelve months ending Nov. 1, 1907	Twelve months ending Nov. 1, 1908	Twelve months ending Nov. 1, 1909	Twelve months ending Nov. 1, 1910	Twelve months ending Nov. 1, 1911
November	\$.2600	\$.2487	\$.2412	\$.2650	\$.2317	\$.2481	\$.2350	\$.2762	\$.2725	\$.2957	\$.3095	\$.3117
December	.2720	.2540	.2510	.2920	.2423	.2688	.2489	.3164	.2887	.3131	.3490	.2966
January	.2650	.2262	.2425	.2762	.2270	.2910	.2654	.3080	.3069	.3154	.3344	.2639
February	.2500	.2250	.2862	.2600	.2517	.3218	.2709	.3254	.3233	.3006	.2964	.2611
March	.2550	.2212	.2810	.2860	.2452	.2807	.2700	.3061	.2840	.2955	.3263	.2391
April	.1960	.2099	.2825	.2725	.2284	.3008	.2188	.3069	.2855	.2708	.3113	.2111
May	.2012	.1900	.2275	.2200	.2012	.2371	.2017	.2501	.2569	.2658	.2843	.2187
June	.1950	.1925	.2195	.2160	.1803	.2049	.2022	.2360	.2329	.2581	.2792	.2499
July	.1960	.1960	.2131	.2012	.1767	.2056	.2062	.2481	.2243	.2623	.2831	.2510
August	.2100	.2050	.1990	.1940	.1793	.2111	.2257	.2488	.2285	.2719	.2938	.2631
September	.2150	.2110	.2170	.2075	.1947	.2068	.2462	.2781	.2388	.3013	.2989	.2655
October	.2190	.2200	.2362	.2100	.2095	.2184	.2611	.2915	.2673	.3064	.2996	.3044
Average val. per lb. per year	\$.2278	\$.2165	\$.2416	\$.2417	\$.2140	\$.2487	\$.2375	\$.2826	\$.2658	\$.2880	\$.3054	\$.2613

### BUTTER OUTPUT.

The amount of butter produced by the creameries of Iowa for the year ending July 1, 1911, shows some increase over the preceding year. This increase, amounting to 2,783,684 pounds, is a little surprising when we take into consideration the extremely dry summer and the general shortage of feed throughout the state.

We find that quite a number of Iowa creameries have begun the manufacture of ice cream and forty-one plants reported having manufactured approximately 250,000 gallons during the year. This is in addition to the ice cream manufactured by the regular ice

cream factories. It is impossible to determine the exact amount of ice cream manufactured throughout the state but the figures we have been able to secure would indicate that the output of butter is materially reduced by the diverting of cream to the manufacture of ice cream.

Much of the butter manufactured during the latter part of the season has shown considerable improvement in quality but a large amount of butter is still going to the markets which is of poor quality by reason of the raw material being received in poor condition.

The figures showing the amount of butter manufactured in each county will very nearly represent the amount produced in the counties throughout the north half of the state. In districts where the centralizing creameries are located, the number of cows reported for each county and the butter manufactured will not give a true idea of the butter industry as much of the cream received by these central plants is shipped a considerable distance and many of the cows reported are in fact owned in adjoining counties.

TABLE NO. II.

TABLE SHOWING NUMBER OF POUNDS OF MILK RECEIVED, NUMBER OF POUNDS OF CREAM RECEIVED, POUNDS OF BUTTER MADE AND POUNDS SOLD TO PATRONS IN IOWA SO FAR AS REPORTED BY THE CREAMERIES.

Counties	Number reporting	Pounds of milk received	Pounds of cream received	Pounds of butter manufactured	Pounds sold to patrons	Pounds sold in Iowa
Adair	4	346,283	2,365,464	822,768	26,285	22,785
Adams	1		383,956	95,989	809	5,934
Allamakee	8		7,779,736	2,049,334	32,530	102,594
Appanoose						
Audubon	8	540,377	2,988,209	1,203,850	57,716	23,093
Benton	6	15,000	1,567,644	553,657	11,576	32,226
Black Hawk	13	28,916,734	5,036,753	2,840,850	146,995	1,051,481
Boone	3	739,003	536,632	239,116	9,828	67,412
Bremer	25	75,132,452	628,709	3,259,593	235,171	140,873
Buchanan	9	21,531,579	1,710,858	1,369,559	110,355	109,808
Buena Vista	3		2,119,887	590,485	4,910	15,117
Butler	15	13,285,488	3,597,594	1,718,427	117,946	57,571
Calhoun	3		1,054,987	366,766	12,768	21,853
Carroll	6	153,084	6,535,536	2,245,966	21,718	41,238
Cass	2	72,000	1,515,239	449,022	3,767	54,748
Cedar	3		706,536	240,948	8,184	138,055
Cerro Gordo	7	1,016,760	4,617,926	1,284,416	14,818	161,138
Cherokee	1		422,964	140,988	2,324	73,000
Chickasaw	12	23,066,039	5,551,203	2,481,548	281,645	89,116
Clarke						
Clay	7	1,379,259	2,897,316	1,100,086	59,468	22,244
Clayton	13	14,586,717	7,424,739	2,835,509	79,089	225,464
Clinton	4	1,299,376	1,843,613	1,375,529	25,192	242,752
Crawford	2		5,044,088	1,691,377		5,444
Dallas	3	190,236	7,114,583	344,821	18,648	156,370
Davis						
Decatur	1		1,954,706	438,676	276	17,400
Delaware	17	32,031,377	5,930,512	3,830,672	213,879	268,440
Des Moines						
Dickinson	4	179,684	1,278,676	426,013	19,809	15,989
Dubuque	16	7,372,533	8,411,783	3,065,002	76,846	332,785
Emmet	5	3,759,795	1,776,546	639,375	49,718	32,326
Fayette	20	45,836,743	5,504,832	3,921,515	289,982	134,577
Floyd	5	14,621	1,922,474	847,116	26,081	246,327
Franklin	4	615,832	3,111,016	897,121	46,578	10,776
Fremont						
Greene	1	186,118	310,688	125,334	2,972	14,197
Grundy	7	4,291,812	2,737,056	1,049,766	53,933	16,921
Guthrie	5	69,760	7,272,924	918,663	30,159	38,161
Hamilton	4	2,054,008	1,333,627	1,115,808	33,255	9,281
Hancock	6		4,297,525	1,295,175	50,323	26,476
Hardin	5	1,149,339	3,229,851	1,117,288	66,600	52,117
Harrison	1	240,000	600,000	240,000	5,000	20,000
Henry						
Howard	7	2,739,546	5,542,196	1,451,771	52,493	14,129
Humboldt	6	597,426	3,041,924	995,198	32,632	12,397
Ida	1		573,255	232,562	562	2,000
Iowa	7	1,569,328	1,896,053	661,702	47,243	9,985
Jackson	9	1,547,518	4,785,373	1,834,957	57,164	89,268
Jasper	2	866,618	499,911	192,511	12,459	28,990



TABLE NO. II—CONTINUED.

Counties	Number reporting	Pounds of milk received	Pounds of cream received	Pounds of butter manufactured	Pounds sold to patrons	Pounds sold in Iowa
Jefferson	2	1,080,000	331,000	2,000	46,000	
Johnson	10	2,325,704	6,411,575	2,032,582	87,310	72,605
Jones	1		404,600	115,600		
Keokuk	18	3,607,178	5,521,940	1,809,335	155,136	81,919
Kossuth	1		3,050,400	943,251		23,000
Lee	7	3,292,162	5,815,111	2,049,105	51,964	465,488
Linn	1		85,912	24,549	135	5,547
Louisia	3		3,113,357	936,445	500	19,900
Lucas						
Lyon						
Madison	1		751,800	223,606		
Mahaska	1	104,580	286,707	96,929	32,249	
Marion	2	738,271	1,195,425	407,520	14,743	76,079
Mills						
Mitchell	8	1,840,000	4,666,045	1,296,312	96,502	30,411
Monona	1		197,943	77,913	475	230
Monroe	1		240,550	72,165	850	22,638
Montgomery	2	2,568,346	589,440	181,245	1,250	73,550
Muscataine	6	2,600	1,973,219	695,305	20,835	43,932
O'Brien	4		1,381,966	462,943	13,666	13,760
Osceola	1		1,937,685	553,970		77,500
Page	14	10,121,309	4,144,035	1,663,818	147,172	82,214
Palo Alto	5	118,086	1,794,917	643,523	9,776	69,762
Plymouth	3		827,143	329,871	3,278	10,081
Pocahontas	1	1,065,750	11,820,079	3,640,171	250,000	1,004,000
Polk	1	1,000,000	3,788,531	1,236,177		
Pottawattamie	8	101,530	1,572,989	481,748	10,491	41,336
Poweshiek						
Ringgold						
Sac	7	37,840	2,120,615	697,888	18,592	21,606
Scott	1	23,474	227,240	69,538	420	30,838
Shelby	1		1,965,305	574,003	11,114	15,569
Sioux	7	1,600	3,589,069	1,338,194	36,852	29,927
Story	8	2,420,728	2,503,024	968,637	114,172	101,999
Tama	2	14,700	377,823	130,088	1,600	11,929
Taylor	1		3,158,840	789,710	12,050	32,353
Union	2	31,810	2,033,355	676,460	892	114,994
Van Buren						
Wapello	1		1,834,164	611,888		405,148
Warren						
Washington	1		1,889,542	670,217	34,172	
Wayne	1		2,885,201	838,341	500	82,000
Webster	15	15,398,683	3,107,110	1,639,982	113,152	25,168
Winnebago	17	5,835,455	2,309,410	24,940	53,639	
Winnechek	3		19,907,019	7,731,101	6,954	566,932
Woodbury	9	1,479,873	4,171,349	1,326,642	56,948	52,385
Worth	6		4,614,002	1,280,833	29,615	103,209
Wright						
Total	469	336,130,569	206,878,356	96,605,584	3,789,217	8,481,940

TABLE NO. III.

TABLE SHOWING NUMBER OF HAND SEPARATORS, NUMBER OF PATRONS AND NUMBER OF COWS.

Counties	No. of creameries reporting hand separators	Receive cream by rail	Hand separators reported	No. of creameries reporting patrons and cows	No. of patrons reported	No. of cows reported
Adair	4	1,027	4	1,051	1,589	
Adams	1	1	1	176	1,232	
Allamakee	8	1,662	8	1,850	14,401	
Appanoose						
Audubon	8	1,185	8	1,190	9,675	
Benton	6	839	6	844	6,496	
Black Hawk	13	5,894	13	8,713	63,074	
Boone	3	579	3	599	2,198	
Bremer	4	223	26	1,867	19,253	
Buchanan	8	512	9	1,167	8,559	
Buena Vista	3	842	3	852	6,211	
Butler	12	1,929	15	1,698	11,478	
Calhoun	3	449	3	449	3,759	
Carroll	6	3,788	6	3,808	22,560	
Cass	2	1,007	2	1,017	6,389	
Cedar	3	290	3	298	1,660	
Cerro Gordo	7	1,279	7	1,313	9,065	
Cherokee	1	128	1	142	850	
Chickasaw	10	1,086	12	2,060	17,830	
Clarke						
Clay	8	996	8	1,078	7,942	
Clayton	12	2,124	13	2,737	20,481	
Clinton	4	1,205	4	1,258	8,295	
Crawford	2	2,315	2	2,315	16,645	
Dallas	2	580	3	894	6,150	
Davis						
Decatur	1	141	1	141	987	
Delaware	14	1,424	17	2,886	21,786	
Des Moines						
Dickinson	4	284	4	296	2,973	
Dubuque	15	1,064	16	2,370	18,194	
Emmet	5	373	5	454	4,163	
Fayette	13	1,440	20	2,781	23,658	
Floyd	5	659	5	981	8,229	
Franklin	4	650	4	680	5,377	
Fremont						
Greene	1	188	1	191	1,337	
Grundy	7	677	7	792	6,571	
Guthrie	5	527	5	968	6,993	
Hamilton	4	714	4	750	4,548	
Hancock	6	1,122	6	1,128	9,355	
Hardin	5	927	5	1,091	7,275	
Harrison	1	400	1	690	4,320	
Henry						
Howard	7	1,125	7	1,413	13,060	
Humboldt	6	1,536	6	1,368	10,206	
Ida	1	285	1	285	1,850	
Iowa	7	738	7	785	5,502	
Jackson	9	1,457	9	1,526	11,995	
Jasper	2	235	2	297	1,800	

TABLE NO. III—CONTINUED.

Counties	No. of creameries reporting hand separators	Receive cream by mail	Hand separators reported	No. of creameries reporting patrons and cows	No. of patrons reported	No. of cows reported
Jefferson	2		350	2	375	2,450
Johnson						
Jones	10		1,908	10	1,975	16,000
Keokuk	1		125	1	125	950
Kossuth	18		1,331	18	1,545	12,138
Lee	1		1,400	1	1,400	7,200
Linn	7		3,211	7	3,963	17,500
Louisa	1		59	1	59	413
Lucas						
Lyon	3		1,077	3	1,117	8,427
Madison						
Malhaska	1		160	1	160	1,117
Marion	1		285	1	425	2,125
Marshall	2		450	2	540	2,325
Mills						
Mitchell	8		1,308	8	1,302	11,322
Monona	1		105	1	105	700
Monroe	1		142	1	277	1,300
Montgomery						
Muscatine	2		380	2	233	1,720
O'Brien	6		848	6	911	7,285
Osceola	4		483	4	483	3,338
Page	1		416	1	416	3,000
Palo Alto	14		1,058	14	1,400	11,300
Plymouth	5		705	5	712	5,540
Pocahontas	3		356	3	358	2,072
Polk	3		6,350	3	6,650	30,400
Pottawattamie	1		175	1	250	1,750
Poweshiek	7		539	7	608	4,188
Ringgold						
Sae	7		802	7	802	4,902
Scott	1		120	1	136	950
Shelby	6		1,023	6	1,023	5,270
Sioux	7		1,845	7	1,842	11,708
Story	8		996	8	1,078	6,638
Tama	2		205	2	506	1,100
Taylor	1		1,325	1	1,325	9,275
Union	2		824	2	824	4,840
Van Buren						
Wapello	1		1,460	1	1,460	7,300
Warren						
Washington						
Wayne	1		1,700	1	1,700	8,500
Webster	1		1,000	1	1,000	6,250
Winnebago	6		855	6	1,245	9,804
Winnesiek	11		1,212	11	2,312	16,460
Woodbury	3		8,625	3	9,042	54,150
Worth	9		680	9	1,030	9,015
Wright	6		1,162	6	1,176	8,670
Total	426		92,636	408	110,918	765,882

## CREAMERY LIST

\*Central Churning Plant. †Skim Station. c—Co-operative. s—Stock. i—Individual.

Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
Adair County—			
Adair Co-op. Cry. Co.	M. L. McManus	Adair	Jos. Ryan
Arbor Hill Co-op. Cry. Co. (Arbor Hill)	J. P. McLaughlin	Stuart	Nels Hansen
Greenfield Cry. Co.	Jas. F. Laude	Greenfield	J. D. Main
Adams County—			
Fars. Mut. Co-op. Cry. Assn.	O. M. Green	Prescott	A. H. Ady
Allamakee County—			
Dorchester Mut. Co-op. Cry.	Jacob Kumpf	Dorchester	Ephrom Burroughs
New Albin Co-op Cry.	R. G. May	New Albin	E. Rice
Fars. Waukon Co-op. Cry.	A. H. Hansmeyer	Waukon	F. A. Fieth
Arctic Spring Cry. (Quandahl)	O. C. Flatberg	R. 3, Spring	
Ludlow Co-op. Cry. (Ludlow)	Wm. F. Shafer	Postville	Wm. P. Muth
Fars. Co-op. Cry. Co.	J. T. Bjerke	Waterville	F. W. Hessel
Postville Fars. Co-op. Cry. Co.	J. W. Campbell	Postville	L. D. Hendershott
Calhoun Cry. Co. (Lansing)	P. E. O'Donnell	Church	K. V. Ferris
Audubon County—			
Liberty Cry.	Jas. Wittrup	R. 1, Manning	Elis Jessen
Danish Sep. Cry. Co.	Peter Lykke	Kimballton	Peter Thuesen
Blue Grass Cry. Co. (Hamlin)	J. W. Slayton	R. 5, Exira	George Gude
Exira Cry. Co.	J. W. Jensen	Exira	C. C. Nelson
West Hamlin Sep. Cry. Co. (Elk Horn)	Ferd Gjorloff	R. 2, Exira	Johannes Johansen
Audubon Twp. Cry. Co.	L. P. Nelson	R. 3, Exira	L. P. Nelson
Oakfield Twp. Sep. Co.	Harry Nymand	Brayton	Marius Anderson
Sharon Sep. Cry. Co.	Otto Larsen	R. 5, Audubon	Peter Windfeldt
Benton County—			
Blairstown Cry.	Chas. Hanbold	Blairstown	Chas. Hanbold
Norway Cry.	H. G. Webster	Norway	H. G. Webster
Fars. Cry. Co.	C. A. Sweet	Belle Plaine	J. H. Neil
Shellsburg Cry.	J. A. Moeller	Shellsburg	Robt. A. Moeller
Urbana Cry.	Jas. Romine	Urbana	Jas. Romine
Model Cry.	Gardemann & Jungelaus	Newhall	W. C. Dubbs
Black Hawk County—			
Benson Cry.	Geo. Mathes	R. 2 Cedar Falls	Jno. Lorenzen
Cedar Falls Cry. Co.	Riedel & Jensen	Cedar Falls	Geo. Assink
Waterloo Fars. Dairy Assn.	S. Switzer	Waterloo	B. W. Chadwick
Gilbertville Dairy Assn. (Gilbertville)	J. B. Kasch	Waterloo	Niels Nielsen
Jubilee Co-op. Cry. Co.	A. J. Widdel	Jesup	A. J. Widdel
Mt. Vernon Cry. Co. (Boles)	Geo. H. Moeller	Denver	I. R. Moon
Hudson Co-op. Dairy Assn.	Henry Lafranz	Hudson	Wm. McFarland
Union Cry. Co. (Finchford)	G. A. Evenson	Winslow	Wm. Peterson
East Lester Cry.	L. B. Dury	Fairbank	Frank Bowdish
Fars. Cry. Assn.	G. M. Kleckner	Dunkerton	O. G. Alexander
Great Western Cry. (Dowar)	E. T. Sadler	Waterloo	Claud Miller
Grain Creek Cry.	Wm. Meier	R. 1, Denver	Wm. Meier
LaPorte Co-op. Cry. Co.	C. B. Griedrich	LaPorte City	W. A. Harvey
*S. P. Wadley Co. (Waterloo)	S. P. Wadley Co.	Dubuque	M. Gleason

## CREAMERY LIST—CONTINUED.

Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
<b>Boone County—</b>			
Boone Cry. Co.	R. J. Severald	Boone	Arthur Anderson
Dodge Fars. Mut. Co-op. Cry.	L. J. Brensen	R. 3, Boone	L. J. Brensen
Rosendale Co-op. Cry. Co.	L. C. Peterson	Story City	L. C. Peterson
<b>Bremer County—</b>			
Maxfield Cry. Co.	J. Strotzman	R. 1, Readlyn	F. H. Wehling
Premont Cry.	E. C. Fink	R. 2, Tripoli	H. J. Hankner
Plainfield Cry.	H. C. Ladage	Plainfield	H. C. Ladage
Dayton Cry.	J. H. Kaseneier	Sumner	Roy H. Scoles
Mohawk Condensed Milk Co.	Paul M. Elden	Waverly	
Jamesville Cry. Assn.	H. W. Stine	Jamesville	B. O. Squires
Readlyn Co-op. Cry. Co.	H. A. Griesse	Readlyn	H. A. Griesse
Spring Fountain Cry. Co.	Wm. Zell	R. 6, Sumner	F. W. Bremer
Grove Hill Cry.	Frank Kane	Fairbank	F. D. Daniels
Seigel Cry. Co. (Tripoli)	H. F. Moeller	R. 2, Waverly	F. H. Harris
Washington Cry. Co.	E. J. Thies	Waverly	A. A. Bottermann
LaFayette Cry. Co.	L. H. Cutler	R. 1, Waverly	H. Piegors
Artesian Cry. Co. (Denver)	C. C. Traetow	Waverly	E. H. Hohmann
Tripoli Cry. Co.	J. C. Koch	Tripoli	Wm. Ambrose
Potters Siding Cry. Co.	H. Willbrandt	R. 2, Tripoli	Jno. Amoros
Sumner Cry. Co.	S. A. Munger	Sumner	F. M. Zell
Excelsior Cry. Co.	H. E. Wuttke	Sumner	Robt. Wagner
Climax Cry. Co.	Henry Specht	R. 6, Sumner	L. L. Zbornik
Klinger Cry. (Klinger)	C. H. Rohrsen	R. 2, Dunkerton	C. H. Rohrsen
Frederika Cry. Assn.	J. H. McDonald	Frederika	Wm. Dilley
First Maxfield Cry. Co. (Denver)	Henry Matthias	Readlyn	J. W. Wedemeyer
Farrington Cry.	S. C. Besh	Denver	C. Wedemeyer
Little Valley Cry. Co.	Chas. Krueger	Sumner	Fred Willis
Western Douglas Cry. Co.	Carl Oberhies	R. 1, Plainfield	Robt. Kerr
Bremer Cry. Co. (Bremer)	Geo. W. Christophle	R. 6, Waverly	H. C. Eick
<b>Buchanan County—</b>			
Wapsie Valley Cry. Co.	C. V. Rosenberger	Independence	Wm. Hammill
+Wapsie Valley Cry. Co. (Littleton)	C. V. Rosenberger	Independence	
Otterville Cry. Co. (Otterville)	Jas. Bantz	Independence	R. E. Bantz
Stanley Cry.	W. H. Day	Stanley	Geo. L. Coyle
Lamont Cry.	L. Thompson	Lamont	E. A. Coker
Rowley Cry.	J. H. Reed	Rowley	J. H. Reed
Jesup Cry. Co.	C. L. Bright	Jesup	E. A. Howey
Hazleton Fars. Co-op. Cry.	Jno. W. Basham	Hazleton	Matt McDowell
Feldbank Fars. Cry. Co.	R. Langley	Feldbank	R. Langley
Buffalo Valley Cry.	J. G. Guthrie	Winthrop	R. D. Ewing
Rush Park Cry.	A. R. Campbell	Independence	
<b>Buena Vista County—</b>			
Fars. Co-op. Cry. Co.	C. P. Corneillussen	Alta	H. S. Allen
Linn Grove Cry.	Peterson & Jensen	Linn Grove	Peterson & Jensen
Fars. Cry. & Produce Co.	E. P. Kruse	Newell	N. C. Olsen
Buena Vista Cry.	Dewitt Goodrich	Storm Lake	
<b>Butler County—</b>			
Monroe Central Cry. (Eleanor)	Ben Oldenberger	Applington	Jess Copeland
Victory Cry.	A. B. Shadblot	Waverly	J. G. Nichols
Clarksville Creamery	M. J. Johnson	Clarksville	M. A. Jones
New Hartford Fars. Mut. Co-op. Cry. Co.	R. L. Farnsworth	New Hartford	Peter Larson
Albion Co-op. Cry. Co. (Parkersburg)	E. S. Philo	New Hartford	W. F. Graham
Northern West Point Cry.	J. O'Brien	Gambier	W. H. Sampson
Courbat Creamery	O. F. Courbat	Shell Rock	O. F. Courbat
Shell Rock Cry. Assn.	E. E. Wilcox	Shell Rock	I. T. Richards
Beaver Co-op. Cry. Co.	J. J. Bergman	New Hartford	Alex Graham
Kesley Cry. Co.	H. Pattersen	Kesley	H. Pattersen

## STATE DAIRY COMMISSIONER

## CREAMERY LIST—CONTINUED.

Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
<b>Butler County—Continued.</b>			
Farmers Co-op. Cry. Co.	A. S. Shook	Greene	J. Jacobsen
White Rose Cry. Co.	S. Patterson	Austinville	C. Jessen
DeMont Cry. Co.	E. C. Capper	Dumont	E. C. Capper
<b>Calhoun County—</b>			
Somers Cry. (Somers)	H. H. Hopkins	Rockford, Ill.	W. H. Graham
Pomeroey Cry. Co.	H. A. Albrecht	R. 1, Pomeroey	Geo. F. Allard
Moon Bros. Cry.	Harry A. Moon	Manson	Chas. G. Moon
<b>Carroll County—</b>			
Willey Cry. Co. (Willey)	L. Larsen	R. 5, Carroll	L. Larson
Halbur Cry. Co.	M. J. Wagner	Halbur	M. J. Wagner
*Fairmont Cry. Co. (Manning)	E. F. Howe	Omaha, Neb.	
Templeton Cry. Co.	Geo. Bierl	Templeton	M. B. Hershey
Rose Valley Cry. Co. (Roselle)	Clemens Kolst	R. 4, Carroll	C. Kohorst
Coon Rapids Cry. Co.	Julius Suhr	Coon Rapids	Julius Suhr
<b>Cass County—</b>			
Farmers Cry. Co. (Cumberland)	E. Enken	Wiota	Albert Heyn
*Atlantic Produce Co.	A. E. McClure	Atlantic	H. S. Obrist
<b>Cedar County—</b>			
Golden Star Cry.	W. H. Kroeger	Bennett	W. H. Kroeger
Home Cry. Co.	Leo Reinking	Lowden	Leo Reinking
West Branch Cry. Co.	Levia Elliott	West Branch	Lewis Elliott
Tipton Co-op. Cry. Co.	C. F. Simmer		
Lowden Co-op. Cry. Co.	A. Freund	Tipton	R. L. Rector
<b>Cerro Gordo County—</b>			
Sunnyside Creamery	C. H. Woodworth	Thornton	L. A. Solreik
Ventura Fars. Cry. Co.	J. E. Sawyer	Ventura	Robert Bless
Rockwell Co-op. Cry. Co.	F. C. Siegrist	Rockwell	Fred D. Ford
Plymouth Co-op. Cry.	J. L. Stevens	Plymouth	C. N. Hart
Meservey Cry. Co.	Geo. M. Luick	Meservey	Rasmus Nelson
Fars. Mut. Co-op. Cry. Co.	H. E. Palmeter	Clear Lake	Guy Thomas
*E. B. Higley Co.	C. O'Keeffe	Mason City	N. H. Knudsen
<b>Cherokee County—</b>			
*Cherokee Cry. Co.	Jno. H. Goeb	Cherokee	Carl J. Goen
White Rose Cry. (Marcus)	J. E. Schultz	Sioux City	Robt. E. Bell
<b>Chickasaw County—</b>			
Saunder Co-op. Cry. Assn.	C. A. Steensland	Saunder	A. W. Snyder
Jerico Cry. Assn. (New Hampton)	Thos. Attleson	R. 1, Lawler	Jno. Finnegan
Fars. Co-op. Cry. Assn.	S. W. Blinn	Nashua	W. D. Wenthe
New Hampton Fars. Cry. Assn.	J. W. Krieger	New Hampton	D. W. Mohler
Lawler Cry. Assn. (Lawler)	F. J. Cooney	New Hampton	J. F. Sharp
Ionla Fars. Cry. Assn.	H. B. Young	Ionla	F. W. Stickman
Fredericksburg Butter Factory	C. L. Whitcomb	Fredericksburg	Ira O'Neil
Alta Vista Fars. Cry. Assn.	Albert Tietjen	Alta Vista	H. B. Portney
Boyd Fars. Co-op. Cry. Assn. (Boyd)	Jno. Helt	New Hampton	J. G. Hart
Williamstown Cry. Assn. (Williamstown)	C. M. Burmaster	Fredericksburg	L. L. Flickinger
Riverside Cry.	J. W. Cagley	Nashua	H. R. Smith
Deerfield Cry. Assn. (Deerfield)	A. T. Greenwood	Charles City	Fred Schreiber
<b>Clay County—</b>			
Fars. Cry. Assn.	Chas. S. Rogers	Greenville	Chas. Watson
The Gillett Grove Cry. Co.	E. E. Higgins	Gillett Grove	E. P. Conway

## CREAMERY LIST—CONTINUED.

Name of Creamery	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
<b>Clay County—Continued.</b>			
Spencer Dairy Pro. Co.	L. C. Peterson	Spencer	C. W. Peterson
Everly Creamery	P. W. Johnson	Everly	P. W. Johnson
Fars. Cry. & Produce Co.	J. A. Reid	Webb	J. A. Reid
Langdon Mut. Cry. Assn.	N. C. Nielsen	Langdon	N. C. Nielsen
Royal Cry. Co.	C. H. Maytravers	Royal	R. W. Weise
Fostoria Fars. Cry. Co.	Mrs. E. I. Chadwick	Fostoria	E. S. Chadwick
Fars. Co-op. Cry. Co.	Jno. J. Lowler	Dickens	W. A. Thayer
<b>Clayton County—</b>			
Union Fars. Co-op. Cry. Co.	Robt. M. Fonda	Monona	Watson Shick
*Western Cry. Co. (McGregor)	E. F. Morse	Chicago, Ill.	W. K. Pollard
The Crown Brand Co.	Leonard & Nielsen	165 Water	Leonard & Nielsen
Edgewood Fars. Co-op. Cry. Co.	W. A. Robinson	Edgewood	H. Evert
Fars. Cry. Co.	H. A. Mallory	Osterlock	C. R. Welch
Millville Cry. Co. (Millville)	Fred Mueller	R. 2, Guttenberg	Carl Loomis
Volga Fars. Co.	A. E. Olinger	Volga City	A. F. Watson
Strawberry Point Fars. Cry.	H. A. Axtell	Strawberry Pt.	J. J. Brunner
Monona Cry. Co.	R. M. Fonda	Monona	Watson Shick
Farmersburg & St. Olaf Co-op. Cry. Co.	Wm. L. Fuhrman	St. Olaf	Jack Frisbie
Littleport Cry. Co.	Frank Sherman	Littleport	Frank Sherman
Luana Fars. Co-op. Cry. Co.	Jno. H. Hanson	Luana	S. Peterson
Garnaville Fars. Cry. Co.	F. C. Wierker	Garnaville	F. C. Fisher
Fidelity Cry. Co.	H. F. Beyer	Edgewood	Royal Pirman
Clayton Cry.	J. M. Seippil	Clayton	H. W. Schure
<b>Clinton County—</b>			
Iowa Cold Storage Co.	A. P. Gray	Clinton	Walton Freed
Farmers Co-op. Cry.	Edw. Hart, Jr.	Toronto	Wilfred L. Sloan
Fars. Co-op. Cry. Co.	Edw. J. Riedesel	Westland	A. E. Banta
Springbrook Cry.	Carl Berst	Welton	J. C. Crawford
Springbrook (Petersville)	Jno. Newman Co.	Elgin, Ill.	L. C. Reynolds
<b>Crawford County—</b>			
*Fairmont Cry. Co. (Denison)	E. F. Howe	Omaha, Neb.	R. E. Cavett
Nicholson Produce Co.	B. U. Nicholson	Denison	H. E. Hansen
<b>Dallas County—</b>			
Fars. Co-op. Cry. Assn.	Jas. L. Keachie	Dexter	Jas. L. Keachie
Woodward Cry.	H. P. Colony & Son	Woodward	Wm. Ackerman
Van Camp Packing Co. Milk Condensory (Perry)	Frank Van Camp	Indianapolis, Ind.	
<b>Decatur County—</b>			
*Clarinda Poultry, Butter & Egg Co. (Leon)	P. H. George	Clarinda	W. B. Beckley
<b>Delaware County—</b>			
Manchester Co-operative	Jas. Bishop	Manchester	W. E. Mittelstadt
Hazel Groen Cry. (Ryan)	Delbert King	Delhi	Edw. R. Bode
Fars. Co-op. Cry. Co. (Thorpe)	M. E. Blair	Manchester	G. Stuessi
Silver Spring Cry.	E. B. Porter	Delhi	H. P. Bancroft
Masonville Co-op. Cry. Co.	F. S. Harris	Masonville	R. J. Erb
*Dairy City Cry. Co.	L. Andrews	Manchester	O. B. Bengtson
Earlville Cry.	J. M. Dunn	Earlville	J. M. Dunn
Delaware Co-op. Cry. (Delaware)	A. D. Long	Manchester	E. E. Mittelstadt
Bea Grove Cry. Co.	Jno. T. Goedken	R. 20, Dyersville	Elmer J. Reed
Hopkinton Co-op. Cry.	L. T. Wilson	Hopkinton	Hugh Bullis
Barryville Co-op. Cry. Co.	Fred Traver	Ryan	Fred Wheeler

## CREAMERY LIST—CONTINUED.

Name of Creamery	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
<b>Delaware County—Continued.</b>			
Colesburg Co-op. Cry. Co.	Robt. A. Grell	Colesburg	A. L. Landis
Greeley Fars. Co-op. Cry.	J. C. Mathews	Greeley	W. R. Craib
Sand Spring Co-op. Cry.	J. W. Knepper	Sand Spring	J. W. Appleby
Ryan Cry. Co.	Geo. A. Emry	Ryan	Geo. A. Emry
Spring Branch Co-op. Cry.	Frank Brayton	Manchester	Raymond Erb
<b>Dickinson County—</b>			
Lake Park Co-op. Cry.	J. G. Chryslor	Lake Park	E. F. Starr
The Millford Fars. Butter & Cheese Assn.	Fred W. Born	Millford	Fred W. Born
Terrill Co-op. Cry. Assn.	T. H. Tvedten	Terrill	M. C. Peterson
Superior Co-op. Cry. Assn.	Mrs. Gladys V. Martens	Superior	Theo. Ericson
<b>Dubuque County—</b>			
Holy Cross Cry. (Holy Cross)	Leo Sweeney	Buena Vista	Jas. McCool
Hague Cry. Co.	H. S. Hague	Zwingle	H. S. Hague
Worthington Cry.	C. Boelcher	Worthington	C. Boelcher
Sherrill Cry. Co. (Sherrill)	J. C. Boelyn	R. 9, Specht's Ferry	Fred Koehler
New Vienna Central Cry.	Henry Smith	New Vienna	W. C. Frank
Globe Cry. Co. (Luxemburg)	Geo. Friedmann	R. 2, N. Buena Vista	Jno. P. Crippes
Farley Cry. Co.	G. W. Cropp	Farley	Thos. Landis
Pillmore Co-op. Cry. (Pillmore)	R. E. Curoe	Bernard	Gus Hanson
*Beafield Cry. Co.	A. O. Elvidge	Dubuque	J. M. Healy
O'Neill Cry. Co. (O'Neill)	Fannie O'Neill	Waupeton	A. E. Becker
*Iowa Dairy Co.	Andrew Flutsch	Dubuque	W. P. Schroeder
Fars. Golden Star Cry.	Jos. Schindler	Dyersville	J. B. Feldman
Hickory Valley Cry. (Dyersville)	Jno. Ramm	R. 17, Farley	Peter Goetzinger
Cascade Co-op. Cry. Co.	J. J. Conliff	Cascade	C. T. Elliott
Columbian Cry. Co. (Laudeville)	Henry W. Lande	R. 4, Dubuque	Gus Riens
Baltown Co-op. Cry. (Baltown)	Albert Cummer	Specht's Ferry	Henry Koehler
<b>Emmet County—</b>			
Fars. Cry. Co.	W. C. Richmond	Armstrong	J. J. Boland
Estherville Cry. Co.	W. A. Kerr	Estherville	J. M. Kerr
Fars. Cry. Co.	O. O. Refsell	R. 1, Wallingford	J. C. Jensen
Hoprig Fars. Co-op. Cry.	Jno. C. Bosold	R. 2, Graetinger	Julius Jensen
Denmark Co-op. Cry.	H. J. Fink	Ringsted	Nels Overgaard
<b>Fayette County—</b>			
Oran Cry. Co.	J. N. Getz	Oran	B. F. Bentley
German Cry. Co. (Westgate)	Wm. Seegers	R. 1, Summer	L. C. Barnes
Maple Grove Cry. Co. (Oelwein)	Thos. E. Sadler	Hazleton	Thos. E. Sadler
Alpha Fars. Cry.	J. T. Gager	Alpha	J. F. Cummings
Richfield Cry. Co.	H. C. Schroeder	Hawkeye	C. A. Day
Fars. Mut. Co-op. Cry. Assn.	Geo. Jellings	Stanley	C. E. Payne
Waucoma Fars. Co-op. Cry. Assn.	Thos. McEnaney	Waucoma	W. H. Eischeld
Riverside Cry. Co.	F. J. Schroeder	Wadena	F. J. Schroeder
Westgate Co-op. Cry. Co.	F. S. Coleman	Westgate	O. C. Capper
The Fars. Co-op. Cry.	G. H. Hackman	St. Lucas	Ben H. Kuennen
Center Valley Cry. Co. (Summer)	R. Briggs	R. 1, Fayette	E. B. Olds
Randallia Cry. Co.	J. E. Holmes	Randallia	Chas. Zierath
Jefferson Cry. Co. (Oelwein)	H. H. Meyer	Independence	Anton Smith
Harlan Fars. Co-op. Cry.	J. C. Lewis	Maynard	C. B. Bracy
Hawkeye Cry. Co. (Hawkeye)	J. Q. Adams	West Union	Chris Rusler
Payette Cry. Co.	Peter E. Jubb	Payette	G. M. Miller
Elgin Fars. Dairy Co.	Melch. Luchsinger	Elgin	Ed. Hanson
Clermont Valley Cry. Co.	F. F. Ferguson	Clermont	Amos Erickson
Fars. Cry. Co.	Floyd Finney	Arlington	G. O. Miller



## CREAMERY LIST—CONTINUED.

Name of Creamery	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Buttermaker
<b>Fayette County—</b>			
Oelwein Fars. Co-op. Cry. Co.	L. C. Harwood	Oelwein	W. W. Day
West Union Fars. Cry Co.	F. C. Billings	West Union	B. F. Schultz
<b>Floyd County—</b>			
Rockford Co-op. Assn.	E. F. Briggs	Rockford	J. C. Farnham
Niles Cry. Co. (Niles)	Frank Brunner	Charles City	Frank Brunner
Peterson Cry.	Theo. Peterson	Charles City	Stuart Barnett
Charles City Cry.	Emil Weiss	Charles City	Wm. E. Johnson
Nora Spgs. Cry. & Produce Co.	W. F. Miner	Nora Springs	Carl Erickson
<b>Franklin County—</b>			
Fars. Co-op. Cry. Co.	H. J. Iverson	Dows	F. L. Larson
Latimer Co-op. Cry. Co.	Chas. Johnson	Latimer	R. D. Sweet
Hamilton Co-op. Cry. Co. (Coulters)	Geo. Dohmann	Hamilton	Herbert Soballe
Ackley Cry. Co.	F. J. Martin	Ackley	Wm. Kottenbeutel
Grant Center Cry. Co.	O. M. Webber	Bradford	H. Brokaw
Fars. Cry. Co.	B. G. Cunningham	Alexander	Harry E. Gates
Hampton Cry. Co.	F. L. Tanner	Hampton	
<b>Fremont County—</b>			
Sidney Co-op. Cry. Co.	H. S. Magel	Sidney	Wm. Roby
<b>Greene County—</b>			
G. W. Nicholson Co.	Wilbur W. Wertz	Grand Junction	Geo. O. Fisher
<b>Grundig County—</b>			
Fredville Co-op. Cry. Co.	Geo. W. Boyesen	R. 1. Dike	A. F. Schultz
Beaver Center Cry. Co.	Andrew J. Meyer	Stout	T. E. Diger
Reinbeck Cry. Co.	R. R. Welch	Reinbeck	E. C. Schuckneet
Grundig Center Produce Co.	B. R. Churchill	Grundig Center	B. R. Churchill
Fern Cry. Co.	W. H. Henning	Parkersburg	B. T. Soles
German Twp. Cry. Co.	F. J. Martin	Ackley	Henry Schutjer
<b>Guthrie County—</b>			
North Branch Co-op. Cry. (Guthrie Center)	O. Sebrat	Extra	P. J. Lyngbalm
Menlo Cry. Co.	P. J. P. Hitebeck	Menlo	H. H. Colbert
Guthrie Center Co-op. Cry.	J. A. McLaughlin	Guthrie Center	A. W. Hanks
Casey Cry. Co.	Harlie E. Smith	Casey	Warren E. Olm
Bayard Co-op. Cry. Co.	E. E. Strawser	Bayard	C. Rasmussen
<b>Hamilton County—</b>			
Ellsworth Co-op. Cry. Assn.	S. Stenberg	Ellsworth	O. B. Stenberg
Randall Fars. Cry. Co.	M. G. Olson	Randall	M. G. Olson
*Ellingson-Mathre & Co.	Ellingson Mathre Co.	Webster City	I. J. Krouskop
<b>Hancock County—</b>			
Fars. Co-op. Cry. Co.	C. C. Lucas	Kanawha	B. O. Brownlee
Concord Cry. Co. (Ventura)	G. H. Lade	Garner	Jens Fonger
Fars. Co-op. Cry. Co.	J. Kiesel	Garner	C. R. Conway
The Model Cry. Cry. Co.	Jno. Goodell	H. H. Jones	
Crystal Cry. Co.	P. Johnson	Crystal Lake	Hans J. Jensen
Britt Co-op. Cry. Co.	H. A. Schaper	Britt	G. G. Kolthoff
<b>Hardin County—</b>			
Alden Cry. Co.	T. E. Huston	Alden	Jno. S. Smith
Eldora Cry. Co.	P. J. Jensen	Eldora	R. R. Hadley
Hubbard Co-op. Cry.	Ernest Hilker	Hubbard	Fred Herzog
Iowa Falls Cry. Co.	E. E. Benedict	Iowa Falls	J. R. Jones
Concord & Scott Cry. Co.	A. Grondahl	Radeliffe	J. F. Burrett

## CREAMERY LIST—CONTINUED.

Name of Creamery	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Buttermaker
<b>Harrison County—</b>			
Magnolia Cry. Co. (Magnolia)	F. H. Cadwell	R.F.D., Logan	Geo. T. Scott
Roundly McMurray Co.	H. J. McMurray	Woodbine	W. H. Chapman
<b>Howard County—</b>			
Maple Leaf Cry. Co. (Maple Leaf)	Diedrich Luke	R. 1. Elma	A. J. Herman
Protovin Cry. Assn.	E. J. Lukes	Protovin	W. A. Kaderabek
Sartoga Co-op. Cry. Assn.	E. A. Watson	Sartoga	Henry Foss
Elma Co-op. Cry. Co.	J. P. Whelan	Elma	J. P. Whelan
Cresco Cry. Co.	D. A. Palmer	Cresco	D. A. Palmer
Schley Cry. Co. (Schley)	C. A. Fosse	R. S. Cresco	N. W. Gratz
Fars. Co-op. Cry. Assn.	L. A. Eggerichs	Chester	C. C. Plummer
<b>Humboldt County—</b>			
Clover Cry. Co.	Lewis Olson	Thor	P. O. Knutson
Rutland Cry. Assn.	Jas. Osia	Rutland	Joe Boen
Wacousta Cry. Co.	A. O. Clave	Ottoson	O. W. Dubbs
*Humboldt Cry. Co.	I. N. Clark	Humboldt	Al Bertleson
Gulake Cry. Co.	C. M. Clausen	Goldfield	Wm. Larson
Bode Cry. Assn.	H. C. Olson	Bode	Iver Shursen
<b>Iowa County—</b>			
Shiner Cry. Co.	S. H. Stanerson	Conroy	W. I. Diger
Genoa Bluffs Cry. Co. (Genoa Bluffs)	M. W. Ketting	Williamsburg	Geo. P. Byrne
Ladora Cry. Co.	Jno. Bahtinger	Ladora	J. O. Erslund
Marengo Fars. Mut. Co-op. Cry. Assn.	Dennis Sullivan	Marengo	B. S. Wallace
Victor Co-op. Cry. Co.	H. F. Lenoecker	Victor	H. F. Lenoecker
Troy Cry. Co.	Geo. C. House	Williamsburg	W. R. Edwards
York Cry. Co. (Williamsburg)	H. W. Hudepohl	South Anana	G. E. Steinke
<b>Ida County—</b>			
Holstein Cry. Co. (Holstein)	H. H. Hopkins	Rockford, Ill.	W. O. Bradley
<b>Jackson County—</b>			
Hansen Cold Storage Co.	F. D. Hansen	Maquoketa	P. J. Hagarty
St. Donatus Cry. & Frantzer	J. P. Frantzer	St. Donatus	J. P. Frantzer
Springer Cry. Co.	Hoffman Cry. Co.	Lamotte	Jno. M. Hoffman
Springbrook Cry. (Preston)	Jno. Newman Co.	Elgin, Ill.	A. J. Negus
Preston Cry. Assn.	Samuel McNeil	Preston	J. A. Gordon
Springbrook Cry. (Miles)	Elgin, Ill.	Elgin, Ill.	W. R. Meter
Fars. Union Co-op. Cry. Co.	Carl Hinkleman	Maquoketa	A. Otner
Fulton Co-op. Cry. Co.	Jno. Helde	Fulton	Jas. S. Watson
Sabula Cry. Co.	J. P. Runkle	Sabula	J. F. Runkle
Bellevue Cry. (Bellevue)	J. F. Runkle	Sabula	J. F. Runkle
<b>Jasper County—</b>			
Baxter Dairy Co.	Henry Krompe	Baxter	G. W. Peterson
Newburg Cry Co.	Jens Jensen	Newburg	Jens Jensen
<b>Jefferson County—</b>			
*Elmwood Cry. Co.	Long & Fisher	Fairfield	T. Lloyd McLane
<b>Jones County—</b>			
Fawn Creek Cry.	W. D. Romine	Anamosa	Wm. Eckers
Fars. Co-op. Cry. Co.	O. W. Brazelton	Monticello	Fred Lehman
Downerville Fars. Cry.	C. R. Wilder	Monticello	C. R. Wilder
Scotch Grove Co-op. Cry.	H. R. Jacobs	Scotch Grove	W. A. Rizer
Martelle Cry. Co.	S. C. Batchelder	Martelle	S. C. Batchelder

## CREAMERY LIST—CONTINUED.

Name of Creamery	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
<b>Jones County—Continued.</b>			
Langworthy Co-op. Cry.....	Jno. H. Batchelder	Langworthy	Jno. H. Batchelder
Amber Co-op. Cry. Co. (Amber)....	P. B. Daly	R. 1, Anamosa	F. S. Nickels
Center Jct. Cry. (Center Junction)...	Mills & Kershaw	180 Dearborn, Chicago	Henry Johnson
Monmouth Cry. (Monmouth).....	Mills & Kershaw	180 Dearborn, Chicago	Geo. Wing
Anamosa Cry. Co.....	Palmer & Mack	Anamosa	N. A. Palmer
Iowa Cry. Co. (Oxford Jct.).....	L. F. Sutton	Clinton	Otto Houken
<b>Keokuk County—</b>			
Geo. M. Griffin Cry. Co.....	Geo. M. Griffin	R. 2, Providence	R. E. White
<b>Kossuth County—</b>			
Fars. Co-op. Cry. Co.....	J. J. Tillman	Ledyard	H. M. Deyer
Rahm Bros. Cry. Co.....	E. F. Rahm	St. Benedict	F. L. Haldeman
Whittemore Cry. Co.....	Thos. Carmody	Whittemore	A. M. Whitney
Lotts Creek Co-op. Cry. (Lone Rock).....	Jno. Markgraf	R. 1, Lone Rock	Wm. Kessler
Swea City Co-op. Cry. Co.....	R. H. Walker	Swea City	B. S. Nelson
St. Joseph Co-op. Cry. Co. (St. Joseph).....	Nicholas Gale	R. 1, Bode	M. J. Donovan
Sexton Co-op. Cry. Co.....	C. A. Little	Sexton	Perry VanAlstine
Seneca Co-op. Cry. Co.....	M. Jensen	Penton	Fred Erickson
Lone Rock Co-op. Cry. Co.....	Robt. Jacobs	Lone Rock	G. L. Gudknecht
Irrington Co-op. Cry. Co.....	J. L. Bedell	Irrington	W. Anderson
Fars. Co-op. Cry. Co. (Hobart).....	A. E. Clayton	Algona	Joel Blomster
Germania Co-op. Cry. Co.....	M. J. Dyer	Germania	M. J. Dyer
Penton Cry. Co.....	C. F. C. Laage	Penton	C. F. Bollig
Bancroft Co-op. Cry. Co.....	Chas. P. Hanson	Bancroft	A. J. Doleschal
Burt Co-op. Cry. Co.....	M. E. Warner	Burt	R. E. Clemons
Plum Creek Co-op. Cry. Co.....	H. J. Bode	Algona	M. J. Bobo
Algona Co-op. Cry. Co.....	J. B. Hofins	Algona	L. P. Anderson
Wesley Cry. Co.....	F. F. Lockwood	Wesley	F. F. Lockwood
Titonka Co-op. Cry. Co.....	G. D. Wellhausen	Titonka	Sumner S. Hudson
<b>Lee County—</b>			
*The S. P. Pond Co.....	E. W. Cox	Keokuk	J. P. McDonald
<b>Linn County—</b>			
Walker Cry.....	H. J. Nietert	Walker	S. W. Laird
Springville Cry.....	C. E. Batchelder	Springville	J. L. Marshal
Ely & Western Cry.....	Frank J. Dolezal	Ely	F. Dolezal
Center Point Cry.....	C. W. Pollock	Center Point	Lee Denison
Valley Farm Cry.....	P. G. Henderson	Central City	Earl George
Central City Cry.....	E. E. Henderson	Central City	W. A. Stone
*Gurlier-Barth Co.....	B. H. Shinn	Cedar Rapids	C. C. McCue
Rogers Cry. Co. (Rogers).....	A. J. Barth	Cedar Rapids	
<b>Louisa County—</b>			
Oakville Cry. Co.....	Geo. W. Graham	Oakville	Wm. Boyle
<b>Lyon County—</b>			
Inwood Cry.....	L. M. Roote	Inwood	H. O. Nelson
*George Cry. (George).....	H. H. Hopkins	Rockford, Ill.	Ed. Wilson
*Rock Rapids Cry.....	W. J. Purchas	Rock Rapids	W. K. Pollard
<b>Mahaska County—</b>			
*Oskaloosa Cry. Co.....	J. Claire Reisman	Oskaloosa	L. F. Clark

## CREAMERY LIST—CONTINUED.

Name of Creamery	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
<b>Marion County—</b>			
Pella Cry. Co.....	J. J. Bousquet	Pella	T. Smorenburg
<b>Marshall County—</b>			
Dunbar Cry. Co.....	S. O. Tow	Dunbar	T. L. Floden
Fars. Cry. Assn.....	R. Robinson	State Center	G. T. Shaunce
Minerva Valley Cry. Assn.....	A. Brackney	Clemons	A. C. Jackman
<b>Mills County—</b>			
Glenwood Cry. Co.....	L. E. Geil	Glenwood	F. D. Shiflet
<b>Mitchell County—</b>			
New Haven Cry. (New Haven).....	Julius Brunner	R. 4, Osage	Julius Brunner
Little Cedar Cry.....	G. L. Helter	Little Cedar	G. L. Helter
Osage Co-op. Cry. Ass'n (Osage).....	Jno. Torsleff	Mitchell	Geo. Dushane
St. Ansgar Cry. Co.....	J. M. Tollefson	St. Ansgar	H. R. Bullis
Fars. Co-op. Cry. Ass'n.....	F. O. Clapper	Orchard	M. M. Blandin
Rock Creek Co-op. Cry. Assn (Osage).....	H. L. Johnson	Rudd	H. M. Crocker
David Co-op. Cry. Assn.....	Mrs. D. E. McLaughlin	David	Wm. Bomberger
Stacyville Cry. ....	Mrs. J. B. Spensley	Stacyville	Chas. Woodiwiss
<b>Monona County—</b>			
Moorhead Cry. ....	P. D. Nelson	Moorhead	P. D. Nelson
<b>Monroe County—</b>			
Albia Cry. Co. ....	Sam Jones	Albia	Earl Burlingame
<b>Muscataine County—</b>			
West Liberty Conds. Milk Co. ....	S. G. McFadden	West Liberty	Harry Wildenbest
*Muscataine Produce & Ice Co. ....	T. F. Beveridge	Muscataine	J. E. Jones
<b>O'Brien County—</b>			
The Hartley Cry. Co.....	F. R. Ballantyne	Hartley	F. R. Ballantyne
Sutherland Cry. Co.....	A. Christensen	Sutherland	A. Christensen
Union Cry. Co.....	Carl Kruse	R. 2, Paullina	Carl Kruse
Sheldon Cry.....	D. A. Miller	Sheldon	Jos. Vollman
Primghar Cry. (Primghar).....	H. H. Hopkins	Rockford, Ill.	R. L. Fouts
Caledonia Cry. Co.....	Geo. W. Harris	Paullina	Wm. Gehris
<b>Osceola County—</b>			
The Ashton Cry.....	B. Kramer	Ashton	J. A. Kramer
Melvin Co-op. Cry. Co. ....	Fred J. Bauman	Melvin	Geo. W. Wheeler
Fars. Co-op. Cry. Co. ....	Jno. Payreithner	Ocheyedan	R. L. Rector
Sibley Cry. ....	L. Lohnbakken	Sibley	Jno. De Vrie
Fars. Co-op. Cry. Co. ....	L. J. Hagerty	Harris	C. J. Gregory
<b>Page County—</b>			
*Clarinda Poultry, Butter & Egg Co. ....	F. J. George	Clarinda	
<b>Palo Alto County—</b>			
Depew Cry. Co. (Cylinder).....	R. Buchan	R. 1, Cylinder	H. C. Hansen
West Bend Co-op. Cry. Co.....	A. L. Frye	West Bend	Christ Bogh
Fars. Co-op. Cry. Co.....	G. A. Appelmann	Ruthven	Chas. E. Yocum
Palo Alto Cry. Co.....	P. K. Iverson	Graettinger	C. C. Anker
Mallard Butter & Cream Assn.....	T. C. Truog	Mallard	T. R. Wilson
Lost Island Cry. Co. (Fallow).....	V. L. O'Connor	Graettinger	M. P. Junker
Emmetsburg Cry. Co.....	Lewis Stuehmer	Emmetsburg	M. Andersen

## TWENTY-FIFTH ANNUAL REPORT OF THE

## CREAMERY LIST—CONTINUED.

Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
<b>Palo Alto County—Continued.</b>			
Rushlake Cry. Co.	D. Z. Martin	Corlew	Carl Larson
Cylinder Cry. Co.	E. W. Reid	Cylinder	E. W. Reid
Silver Lake Cry. Co.	J. J. Martin	Ayrshire	F. E. Shellman
Fairville Cry. Co. (Fairville)	Joe. King	R. Z. Cylinder	W. D. Kueker
Osgood Cry. Co. (Osgood)	G. C. Thompson	Emmettsburg	Earl Nelson
Fars. Co-op. Cry. Co.	F. L. Lambe	Graettinger	Wm. Matters
<b>Plymouth County—</b>			
Lemars Cry. (Lemars)	W. S. Hutchinson	Sioux City	P. E. Hooper, care of Hutch- inson Bros. Co.
Akron Cry.	Aug. Papritz	Akron	Aug. Papritz
Rensen Cry. (Rensen)	H. H. Hopkins	Rockford, Ill.	Jas. Lovestrom
Paynes Cry.	Payne Bros.	Kingsley	Carl Lissner
Grant Twp. Cry. Co.	Fred Kusch	Craig	B. H. Loeffler
<b>Polk County—</b>			
*Des Moines Cry. Co.	B. S. Schermerhorn	Des Moines	A. L. Larson
*Fars. Co-op. Produce Co.	L. O. Loizeux	Des Moines	N. Danielsen
*Beatrice Cry. Co. (Des Moines)	Clyde Hays	Lincoln, Neb.	Robt. Rae
<b>Pocahontas County—</b>			
Palmer Cry.	Geo. Siebels	Palmer	Ed. Johnson
Laurens Cry.	J. G. Hinn	Laurens	F. W. Johnson
Plover Cry.	H. Fitzgerald	Plover	A. G. Heintzman
<b>Pottawattamie County—</b>			
Waterloo Cry. (Council Bluffs)	Leroy Corliss	Omaha, Neb.	Wm. Leuber
*Bloomer Ice & Cold Storage Co.	D. F. Anderson	Council Bluffs	Lee Frederlex
<b>Poweshiek County—</b>			
Ewart Co-op. Cry. Co.	E. W. Gregson	Ewart	C. C. Bomberger
Sheridan Fars. Mut. Co-op. Cry. Co. (Tama)	J. F. Shope	Malcom	A. H. Smith
Deep River Cry. Co.	Henry J. Goebel	Deep River	H. J. Goebel
*Grinnell Cry. Ice & Cold Storage Plant	J. W. Fowler	Grinnell	H. W. Spencer
Springbrook Cry.	J. E. DuCharme	Montezuma	J. E. DuCharme
Springbrook Cry.	O. W. Hicks	Guernsey	O. W. Hicks
Fars. Co-op. Cry. (Jacobs Switch)	R. J. Rivers	R. 7, Grinnell	F. J. Crowther
Brooklyn Cry. Co.	I. Jones	Brooklyn	G. H. Guthrie
<b>Sac County—</b>			
Hillman Cry.	I. Hillman	Lytton	Fred Hillman
Wall Lake Cry.	C. W. Davis	Wall Lake	Guy Pearce
Eden Cry.	Geo. S. Angler	Schaller	Elmer Wise
Schaller Cry. (Schaller)	H. H. Hopkins	Rockford, Ill.	S. P. Peterson
Fars. Co-op. Cry. Co.	L. W. McCreery	Early	L. W. McCreery
Lake View Cry.	H. M. Rogers	Lake View	W. F. Metz
<b>Scott County—</b>			
Star Cry.	Henry Gathja	Long Grove	Guy Mathias
Bell-Jones Co.	M. V. Jones	Davenport	Geo. Ferris
<b>Shelby County—</b>			
Prairie Rose Cry. (Walnut)	Jno. H. Vendeng	R. 2, Walnut	Chris Back
Fars. Mut. Co-op. Cry. Co.	Fred Koehnig	Kirkman	Nie E. Hansen
Buck Valley Cry. Co. (Kimballton)	Paul Bjorn	R. 2, Harlan	Peter Nyman
Center Co-op. Cry. Co. (Harlan)	D. J. Carmichael	R. 4, Harlan	L. C. Langesen

## CREAMERY LIST—CONTINUED.

Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
<b>Shelby County—Continued.</b>			
Earling Cry.	Bruck & Kenkel	Earling	J. A. Bruck
Portsmouth Cry.	M. Ankersterne	Portsmouth	M. Ankersterne
<b>Sioux County—</b>			
Hull Cry.	O. DeRoos	Hull	J. DeRoos
Hawarden Cry.	Mueder Bros.	Hawarden	Emil Zorr
Hospers Cry.	Wm. Stover	Hospers	Jno. J. Marx
The Altton Cry.	C. J. Mueller	Altton	H. E. Collins
Fars. Mut. Co-op. Cry. Ass'n.	E. J. Kraal	Orange City	M. M. Sorenson
Boydell Cry.	Roy P. Bethmers	Boydell	H. A. Hoopman
Sioux Ctr. Cry. (Sioux Ctr.)	Jeagerhuis	Sioux Center	J. T. Vethrop
Rock Valley Cry.	F. Vander Stoep	Rock Valley	Ed Vander Stoep
<b>Story County—</b>			
Fars. Mut. Cry. Ass'n.	C. P. Lake	Gilbert	C. P. Lake
Huxley Fars. Co-op. Cry. Co.	Sam Malard	Huxley	O. J. Olson
Roland Fars. Cry. Co.	L. T. Olson	Roland	Geo. Wick
Story City Cry. Co.	Alex. Henderson	Story City	Sam Saveriede
Slater Fars. Cry. Co.	E. L. Croft	Slater	C. Clark
Zearing Cry. Co.	C. P. Bean	Zearing	C. E. Buffington
Iowa State College Cry.	Prof. M. Morten-	Ames	Harry J. Evans
McCallsburg Fars. Cry. Co.	B. H. Baum-	McCallsburg	C. F. Knutson
<b>Tama County—</b>			
Gladbrook Cry. (Gladbrook)	H. F. Beyer	Edgewood	Peter White
Springbrook Cry. (Elberon)	Jno. Newman Co.	Elgin, Ill.	Ed. Novak
Traer Cry. Co.	G. E. Olson	Traer	
<b>Taylor County—</b>			
Bedford Cry.	Frank Dunning	Bedford	Leslie Klopp
<b>Union County—</b>			
Fars. Co-op. Cry. Co.	B. M. Breed	Afton	V. O. Williams
*Clarinda Poultry, Butter & Egg Co. Creston	F. H. George	Clarinda	A. C. Zimmerman
<b>Wapello County—</b>			
*Yorkshire Cry. Co.	R. N. Morrell	Ottumwa	C. A. Gage
<b>Washington County—</b>			
Hawkeye Conds. Milk Co.	T. Thompson	Brighton	
<b>Wayne County—</b>			
*Old Colony Cry.	Jas. J. Humphrey	Humeston	M. W. Bixby
Corydon Cry. Co.	J. K. Green	Corydon	E. F. Davis
<b>Webster County—</b>			
*Ft. Dodge Cry.	A. R. Loomis	Ft. Dodge	J. J. Mayer
Dayton Co-op. Cry. Co.	C. D. Waterbury	Dayton	C. L. Mills
Gowrie Co-op. Cry. Co.	E. E. Renquist	Gowrie	Chester B. Stevens
<b>Winnebago County—</b>			
Forest City Co-op. Cry. Ass'n.	Jno. Carson	Forest City	E. A. Jensen
Lake Mills Cry. Co.	Ole T. Groe	Lake Mills	E. L. Forester
Lincoln Cry.	Wm. Peterson	Raka	Henry Springer
Seaville Cry. Ass'n.	K. M. Larson	Seaville	Soren Kristensen

## CREAMERY LIST—CONTINUED.

Name of Creamery	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
<b>Winnebago County—Continued.</b>			
Vinje Cry. Ass'n.....c	Ole Strom .....	Scarville .....	Martin Thorger-son
Thompson Co-op. Cry. Ass'n.....c	M. M. Tapager.....	Thompson .....	C. C. Clifton
Buffalo Center Co-op. Cry.....c	C. D. Fausch.....	Buffalo Center	
<b>Winneshiek County—</b>			
Lincoln Cry. Co.....c	O. O. Rue.....	Ridgeway .....	J. H. Bakken
Ridgeway Cry.....i	O. A. Fosse.....	Ridgeway .....	O. A. Fosse
Silver Spring Cry.....s	H. P. Nicholson.....	Ossian .....	Ole Hauge
Nordness Cry. Co. (Nordness).....s	J. N. Bragestad.....	R. I. Decorah.....	V. V. Johnson
Kendallville Cry. (Cresco).....i	N. H. Nelson.....	Calmar .....	Ed Hoines
Rock Springs Cry. Co. (Highlandville)s	P. M. Peterson.....	Spring Grove, Minn.	P. M. Peterson
Highland Cry.....i	Bidne & Akre.....	Highlandville .....	P. J. Bidne
Festina Cry. Co. (Festina).....c	W. A. Schrandt.....	R. I. Calmar.....	Mike Hauer
Calmar Cry. Co.....s	A. A. Olson.....	Calmar .....	Iver Barlow
Silver Creek Cry. Co.....c	J. A. Thompson.....	Burr Oak .....	J. O. Johnson
Ice Cave Cry.....i	H. F. Roberg.....	Decorah .....	E. T. Halsey
<b>Woodbury County—</b>			
Glendell Cry.....s	H. O. Harstad.....	Sioux City .....	Chris J. Watt
*Blue Valley Cry. Co.....s	C. J. Walker.....	Sioux City .....	C. L. Smith
*Hanford Produce Co.....s	J. H. Whittemore.....	Sioux City .....	M. O. Wheelock
<b>Worth County—</b>			
Joice Co-op. Cry. Ass'n.....c	M. O. Evans.....	Joice .....	H. K. Nelson
Tenold Cry. Ass'n.....c	O. K. Storre.....	Kensett .....	N. O. Dahlen
Brookfield Cry. Ass'n.....c	F. A. Tenold.....	Northwood .....	H. O. Stendel
Hartland Dairy Ass'n (Northwood).....c	Gust. Reyerson.....	Emmons, Minn.	A. O. Dahlen
Fars. Co-op. Cry. Co.....c	H. D. Backhaus.....	Manly .....	L. O. Knudson
Fars Butter & Cheese Ass'n.....c	M. D. Johnson.....	Northwood .....	F. D. Warner
Kensett Cry.....i	Gyllick Bros.....	Kensett .....	N. Gyllick
Fertile Co-op. Dairy Co.....c	J. A. Johnson.....	Fertile .....	J. A. Johnson
Hanlontown Cry. Co.....c	F. C. Hinze.....	Hanlontown .....	F. C. Hinze
<b>Wright County—</b>			
Goldfield Fountain Cry.....i	W. E. Mann.....	Goldfield .....	L. H. Larson
Norway Co-op. Cry. Co. (Olaf).....c	C. J. Baxter.....	R. 3. Belmond.....	H. J. Foss
Clarion Cry. Ass'n.....c	Wiert Johnson.....	Clarion .....	Antis Fatland
Rowan Co-op. Cry. Co.....c	A. C. Rietz.....	Rowan .....	A. E. Pelly
Fars. Co-op. Cry. Co.....c	G. F. Elder.....	Belmond .....	C. H. Vanderham
*Eagle Grove Cry. Co.....i	Jno. P. Olsen.....	Eagle Grove .....	Wm. Gossman

## CHEESE FACTORY LIST

Name of Factory	Name of Proprietor, Secretary, or Manager	Postoffice	Name of Cheesemaker
<b>Cass County—</b>			
Lewis Cheese Factory.....t	M. E. Delean.....	Lewis .....	M. E. Delean
<b>Chickasaw County—</b>			
Ionia Cheese Factory.....i	H. W. Kann.....	Ionia .....	Alfred Kann
<b>Greene County—</b>			
Dana Mut. Co-op. Cry. Co.....c	W. J. Elling.....	Dana .....	A. J. McNurlen
<b>Howard County—</b>			
Clover Leaf Cheese Factory.....i	J. J. House.....	Cresco .....	J. J. House
<b>Jefferson County—</b>			
East Pleasant Plain Cheese Ass'n.....s	F. L. Rynor.....	Pleasant Plain	F. L. Rynor
<b>Wayne County—</b>			
Cheese Factory at Lineville.....	Matthew DeHaan.....	Lineville .....	Matthew De Haan
<b>Washington County—</b>			
Dublin Cheese Factory.....	J. S. Mangold.....	Washington, R5	-----
<b>Bremer County—</b>			
Janesville Cheese Factory.....	Fowler Co.....	Waterloo .....	-----
<b>Fayette County—</b>			
Stewart Cheese Factory.....	P. P. Stewart.....	Maynard .....	-----

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## TWENTY-SIXTH ANNUAL REPORT

OF THE

## STATE DAIRY COMMISSIONER

TO THE

GOVERNOR OF THE STATE OF IOWA

FOR THE YEAR 1912

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W. B. BARNEY  
STATE DAIRY COMMISSIONER

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