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1898

Practical Suggestions

IN

Dairy and Creamery Management.

DAIRY LAWS OF IOWA.

L. S. GATES,

Tewks.

DAIRY COMMISSIONER.

July 6, 1898.

DES MOINES:
F. R. CONAWAY, STATE PRINTER
1898.

Value of Factories	3,688,149.	Number of Patrons	87,349
—	—	Number of Cows	74,5143

Number of Cows 745, 193

1897

MAP OF

IOWA

creameries
Skin Stations
and

Chesse

Creameries	773
Skin Stations	118
Cheese Factories	76

773

178
76

70

Represents
a Creamery
Each Circle
a Skim
Station
and
Each Cross
a
Cheese Factory

By Permission of the Board of Agriculture.

Net Weight 83.620.081 lbs

1897
MAP OF

IOWA

Butter Shipments Reported

Value \$ 13.936,680, $\frac{17}{100}$

By Permission of the Board of Agriculture.

PRACTICAL SUGGESTIONS IN DAIRY AND CREAMERY MANAGEMENT.

1. It is a good thing to know how to do, but it is a far better thing to do as well as we know.

2. Each dairyman should strive to produce the best and sweetest of milk, then see to it himself that it is delivered to the factory in the best possible condition.

3. Let each patron support his own creamery and do all in his power to make it successful. A successful and paying creamery business can hardly be built up without the patron and the manufacturer working in unison.

4. Own and milk good cows. If you have poor ones, send them to the butcher.

5. Never use or sell milk from diseased or unhealthy cows. It is dangerous even to feed it to the pigs.

6. Keep the cow warm and dry.

7. Feed clean, bright food in variety to produce good results.

8. Do not allow a cow to drink water you would not drink yourself.

9. Keep the cow clean by using plenty of clean, bright bedding.

10. Milk with clean, dry hands, and as quickly as possible.

11. Strain milk through cloth thick enough to retain any particles of dust or litter that may be in it.

12. It takes as much muscle to milk one hard milking cow as it does to milk four or five easy milkers. Sell her.

13. Treat cows quietly and kindly; excitement affects the quantity and quality of milk.

14. Remember, when filling cans with skimmed milk at the creamery, that it is not always the other fellow that needs watching.

15. The cornstalk, either shredded or in ensilage, is one of the best feeds for the cow. Hundreds of thousands of dollars' worth of this feed are annually lost in Iowa.

16. In freezing weather, scald can covers just before starting the milk for the factory. Then cream will not stick and freeze in them. Also cover cans.

17. Wish you would write me what the cash value of skimmed milk or whey is to you as returned from the creamery or cheese factory.

CARE OF CANS.

1. Rinse cans in cold water, thoroughly wash in warm water, scald with boiling water and turn over stake in the sun.

2. Set milk in tank of cold water in summer and stir with long-handled dipper. This will eliminate animal odors and add to your test account. Also aerate morning's milk. Leave covers so that vapors can escape.

3. Important: In winter keep milk out of house and out of barn over night. Build place to keep it where no bad odors will penetrate.

4. Do not mix night and morning milk.

5. Fill cans full, so the milk will not churn on the road to the factory.

6. Put no milk in old, rusty milk cans.

7. A load of bright, clean cans, filled with clean, sweet milk, makes the creamery manager happy.

THE TEST.

1. There is no question that the Babcock principle for measuring the worth of milk for butter-making is correct when properly applied.

2. Take no milk into your weigh can that is not in good order

3. Stir the milk thoroughly before dipping for sample.

4. See that you have an accurate machine, and that bottles used have been tested by D. C. bottle. Also important that you have D. C. pipette.

5. Be careful to have acid of standard strength.

6. Have acid and milk of the same temperature.

7. Ascertain the rapidity at which your machine should run to make accurate measurements.

8. Keep samples warm until your reading is complete.

9. As soon as the test is taken record it and post where any patron can see it.

10. The test is to teach the patron what his milk is worth for butter-making as well as to show the creamery what it can afford to pay for it.

TO THE MANAGER

1. The butter-maker and the cheese-maker are the men who handle the product that makes the money for the people of this state; easily \$15,000,000 in the last year.

2. Give the butter maker your support and an occasional word of encouragement. He has many and queer things to contend with, and sees too much of the bad side of human nature to thoroughly enjoy life.

3. Give him good machinery and improved apparatus, and he is very likely to take good care of it.

4. Important: Be sure you have good drainage for your creamery or cheese factory. The odor that sometimes comes from the factory prejudices the consumer against your product.

5. Pump all separated milk and butter-milk into clean galvanized iron or tin tanks.

6. Wash and scald tank each day.

7. Never water separated milk to make it hold out, but rather see to it that each patron has the amount of milk to which he is entitled.

8. Separated milk is of value to the farmer when returned to him in good order.

9. The manager that treats his patrons in such a manner that he receives their confidence is on the direct road to success.

10. Treat the chronic kicker as fairly as the best patron. It is hard, but you should do it.

11. If possible secure the services of a good butter-maker. It pays.

12. Stand by your butter-maker. Allow no one to browbeat him and continually harass him. It warps his judgment and dulls his ability.

13. Put all products in neat, clean packages.

14. Ship only to responsible parties.

15. It is the part of good management to pay and balance all accounts each month.

16. Never be persuaded to pay more for milk than you receive for butter for the month, after all expenses are paid. The temptation is sometimes very great.

17. Never ask your butter or cheese-maker to favor you as patron or manager in the making of tests.

18. Lack of faith in the accuracy and honesty of the test is the greatest enemy of the creamery interests of the present time, and every creamery manager should strive to eliminate this distrust.

TO THE BUTTER-MAKER.

1. Be honest. It is the best qualification for a man in any business, as well as for a butter-maker or creamery manager.
2. Keep the person clean as well as the creamery and utensils.
3. If every butter and cheese-maker in Iowa would be scrupulously clean in his vocation, it would add much to our reputation and profit.
4. If possible, keep in touch with your patrons, so that your suggestions and requests will be readily complied with.
5. It is impossible to make good butter out of poor milk. Send it back.
6. To make fine butter requires great skill, and the operator should take pains to become thoroughly acquainted with his business.
7. Strive to keep in touch with the butter-makers of the state.
8. Make suggestions for the report of the dairy commissioner. He would like them.

It is easily possible to make an increase of 10 per cent in the next year's product of butter and cheese. That would mean an addition of \$1,500,000 to the net income of the dairymen of this state.

Iowa does and should produce the best butter in the world, and the whole world should know of it, that the world's markets may be open to us.

DAIRY LAWS.

CHAPTER 13.

OF THE DAIRY COMMISSIONER AND IMITATION DAIRY PRODUCTS.

SECTION 2515. **Appointment—bond—powers and duties of commissioner—report.** On or before the first day of April of each even numbered year, the governor shall appoint a dairy commissioner, who shall have a practical knowledge of and experience in the manufacture of dairy products, and hold his office for two years from the first day of May following his appointment, and until his successor is appointed and qualified, subject to removal by the governor for inefficiency, neglect or violation of duty. He shall give bond in the sum of ten thousand dollars, conditioned for the faithful performance of his duties, with sureties to be approved by and filed with the secretary of state. He shall keep on hand a supply of standard test tubes or bottles and milk measures or pipettes adapted for use by each milk testing machine, the manufacturers or dealers of which have filed with the dairy commissioner a certificate from the director of the Iowa agricultural experiment station, which shall certify that said milk testing machine, when properly and correctly operated, will produce accurate measurements of butter fat, and furnish to any person or corporation desiring the same for testing milk one such tube or bottle, and such milk measure or pipette for each factory, of the kind adapted for the machine operated therein, upon request therefor, certifying it to be accurate, reliable and standard, placing thereon the letters "D. C." as a permanent mark; the tubes or bottles and pipettes to be furnished at the actual cost thereof. He shall have and keep an office in the capitol, and preserve therein all correspondence, documents, records and property of the state pertaining thereto, and may, when necessary, employ a clerk at an expense of not more than seventy-five dollars per month. During his term of office he shall hold no other official position nor any professorship in any state educational institution, and on or before the first day of November shall make annual report

to the governor, which shall contain a detailed account of all his doings as commissioner, and the receipts and disbursements of his office since the preceding report, with such facts and statistics in regard to the production, manufacture and sale of dairy products, with such suggestions, as he may regard of public importance connected therewith. In the conduct of his office, he shall have power to issue subpoenas for witnesses, enforce their attendance, and examine them under oath by him to be administered, such witnesses to be allowed fees as in justices' courts, to be paid by the commissioner as part of the expenses of his office, and do such other acts and things as are necessary and proper in the enforcement of the provisions of this chapter.

SEC. 2516. Imitation butter or cheese. Every article, substitute or compound, save that produced from pure milk or cream from milk of cows, made in the semblance of or designed to be used for and in the place of butter, is imitation butter; and every article, substitute or compound, save that produced from pure milk or cream from milk of cows, made in the semblance of or designed to be used for and in the place of cheese, is imitation cheese. No one shall manufacture, have in his possession, offer to sell or sell, solicit or take orders for delivery, ship, consign or forward by any common carrier, public or private, and no common carrier shall knowingly receive or transport, any such imitation butter or cheese, except in the manner and subject to the regulations in this chapter provided.

SEC. 2517. Substitute for butter or cheese—regulations as to sale and use—transportation. A substitute for butter and cheese, not having a yellow color nor colored in imitation of butter and cheese as prohibited in the next section, may be manufactured, kept in possession, offered for sale, sold, shipped, consigned or forwarded by common carriers, public or private, if each tub, firkin, box or other package in which the same is kept, offered for sale, sold, shipped, consigned or forwarded shall have branded, stamped or marked on the side or top thereof in the English language, in a durable manner, the words, "Substitute for butter" or "Substitute for cheese," as the case may be, the letters of the words to be not less than one inch in length by one-half inch in width. The defacing, erasure, canceling or removal of this brand or mark, with intent to mislead, deceive, or violate any provision of this chapter, is prohibited. Such substitute for butter or cheese

may be kept, used or served as a food or for cooking in hotels, restaurants, lunch counters, boarding houses or other places of public entertainment, only in case the proprietor or person in charge of such place shall display and keep constantly posted a card opposite each table or other place where the guests or others are served with the same, which card shall be white, at least ten by fourteen inches in size, the words, "Substitute for butter used here" or "Substitute for cheese used here," as the case may be, printed in black Roman letters of the same size as herein required to be placed upon the tubs, firkins, boxes or other package in which substitute for butter or cheese is kept, and no other words or figures shall be printed thereon. No substitute for butter or cheese shall be offered for sale in the manufacturer's original package under the name of or for true butter or cheese made from the milk or cream of cows, nor shall any substitute for butter or cheese be offered for sale or sold unless the purchaser at the time was informed thereof, and, in addition, furnished with a printed statement in the English language in prominent type that the substance sold is such substitute, and giving the name and place of business of the maker. Nothing herein contained, however, shall be so construed as to prohibit the transportation of imitation butter or cheese through and across the state.

SEC 2518. Coloring—adulteration. No one shall color with any matter whatever any substance intended as a substitute for butter or cheese, so as to cause it to resemble true dairy products, or combine any animal fat, vegetable oil or other substance with butter or cheese, or combine with any substance whatever, intended as a substitute for butter or cheese, any thing of any kind or nature for the purpose or with the effect of imparting to the compound the color of yellow butter or cheese, the product of the milk or cream from cows, or use, solicit orders for delivery, keep for sale or sell any such substance so colored and disguised as a substitute for butter or cheese; but nothing in this chapter shall be construed to prohibit the use of salt, rennet, or harmless coloring matter in making butter or cheese from such milk or cream.

SEC. 2519. Package branded. No one shall have in his possession or under his control, except for the actual consumption of himself or family, any substance designed as a substitute for butter or cheese, unless the tub, firkin, box or package holding the same is branded or marked as in this chapter

required. Any person having in his possession or under his control such substance, not so branded or marked, shall be presumed to know its true character and name.

SEC. 2520. Contracts invalid. No action shall be maintained in any of the courts of the state upon any contract or sale made in violation of or with the intent to violate any provision of this chapter by one who was knowingly a party thereto.

SEC. 2521. Search warrants—samples. Whoever shall have in possession or control any imitation butter or cheese or any substance designed to be used as a substitute for butter or cheese contrary to the provisions of this chapter, shall be held to have possession of property with intent to use it as a means of committing a public offense, and all the provisions of the chapter relating to search warrants and proceedings thereon shall apply, except the officer serving the warrant, in addition to his duties as therein required, shall deliver to the dairy commissioner, or to a person by him authorized in writing to receive the same, a perfect sample of each article seized by virtue of such warrant, for the purpose of having the same analyzed, and forthwith return to the person from whom it was taken the remainder of each article seized. If any sample is found to be imitation butter or cheese, or substance designed to be used as a substitute for butter or cheese, it shall be returned to and retained by the magistrate for the purposes contemplated in said chapter on "search warrants and proceedings thereon," but if any sample be found not imitation butter or cheese, or a substance designed to be used as a substitute therefor, the value of the same shall be paid by the dairy commissioner as a part of the expenses of his office, to the person from whom it was taken.

SEC. 2522. Milk dealers—manufacturers and packers—reports. Every city milk dealer, or every person furnishing milk or cream to such dealer, or the employe of such milk dealer, and every person or corporation, or the employe of such person or corporation, who operates a creamery, cheese or condensed milk factory, or re-works or packs butter, shall maintain his premises and utensils in a clean and hygienic condition, and shall make, upon blanks furnished by the dairy commissioner, such reports and statistics as may be required for the purpose of compiling statistics authorized by this chapter, and such dealer, owner, operator or business manager shall

make such returns and reports in the manner and in the time prescribed by the commissioner, and certify to the correctness thereof.

SEC. 2523. Milk test. Any person or corporation, or the employe of such person or corporation, who operates a creamery or cheese or condensed milk factory, and uses a chemical milk test to determine the quantity of butter fat in milk purchased, used or received, shall so use only such tests as shall be clear oil, free from any foreign substance, and produce correct measurements of butter fat, and every such person or corporation using a milk test shall procure from the dairy commissioner for each factory so operated one standard tube or bottle, and one standard measure or pipette, for testing milk, certified and marked by him as in this chapter provided, which shall be kept for inspection by the patrons and used by such person or corporation in testing or verifying test tubes or bottles and milk measures or pipettes used. In any action arising between any such operator and patron, the burden of establishing the use of reliable tests and the results therefrom, equivalent to the standard herein provided, shall be upon the operator.

SEC. 2524. Samples collected. The commissioner may appoint agents in any city having over ten thousand inhabitants to collect from each dealer, not more than four times each month, samples of milk offered for sale therein. The agent shall make an accurate test of each sample received by him, and keep a true record thereof, with the name and location of the person from whom it was obtained, and report his work in detail to the commissioner, the compensation therefor not to exceed three dollars for each day actually employed therein.

SEC. 2525. Permits. Any person or corporation who shall sell milk or cream from a wagon, depot or store, or sell or deliver milk or cream to a hotel or restaurant or boarding house, or any public place in any such city, shall be considered a city milk dealer. No such city milk dealer shall sell milk or cream from a wagon, depot or store in any such city without a written permit from the commissioner for each wagon, depot or store operated by him, for which he shall pay annually one dollar. All permits shall expire on the fourth day of July of each year, and no permit shall be issued for less than one dollar.

SEC. 2526. Inspection. He or his agent may open any can or vessel containing milk or cream offered for sale in such city,

and inspect its contents and take samples therefrom for testing or analysis. And any city milk dealer, or employe of such milk dealer, or any other person who shall resist or interfere with the commissioner or his agent in the performance of his duties in executing any of the requirements of this chapter, shall be guilty of a misdemeanor and punished as provided in this chapter.

SEC. 2527. Penalties. Whoever shall violate any provision of this chapter shall be punished by a fine not exceeding five hundred dollars, or by imprisonment in the county jail not exceeding six months, or by both such fine and imprisonment, at the discretion of the court.

SEC. 2528. Compensation—expenses. The commissioner shall be allowed necessary postage, stationery and office supplies, and shall receive an annual salary of fifteen hundred dollars and necessary expenses, which shall not exceed three thousand dollars per year; such expenses to be itemized, verified by him, and, when examined and approved by the executive council, to be paid upon a warrant of the state auditor drawn upon the state treasurer. The salary of the clerk shall be paid in the same manner.

FROM CHAPTER 10, TITLE 24, CODE.

SEC. 4989. Sale of impure or skimmed milk—skimmed milk cheese—labeling. If any person shall sell, exchange, or expose for sale or exchange, or deliver or bring to another, for domestic or potable use, or to be converted into any product of human food, any unclean, impure, unhealthy, adulterated, unwholesome or skimmed milk, or milk from which has been held back what is commonly known as strippings, or milk taken from an animal having disease, sickness, ulcers, a scess or running sore, or which has been taken from an animal within fifteen days before or five days after parturition; or if any person, having cows for the purpose of producing milk or cream for sale, shall stable them in an unhealthy place or crowded manner, or shall knowingly feed them food which produces impure, unwholesome milk, or shall feed them distilled glucose or brewery waste in any state of fermentation, or upon any substance in a state of putrefaction or rottenness or of an unhealthy nature, or shall sell or offer for sale cream which has been taken from milk the sale of which has been prohibited, or who shall sell or offer for sale, as cream, an article which

shall contain less than the amount of butter fat as prescribed in this chapter; or if any person shall sell or offer for sale any cheese manufactured from skimmed milk, or from milk that is partly skimmed, without the same being plainly branded, stamped or marked on the side or top of both cheese and package, in a durable manner, in the English language, the words "skimmed milk cheese," the letters of the words to be not less than one inch in height and one-half inch in width, he shall be fined not less than twenty-five nor more than one hundred dollars, and be liable for double damages to the person or persons upon whom such frauds shall be committed; but the provisions of this section shall not apply to skimmed milk when sold as such and in the manner and subject to the regulations prescribed in this chapter.

SEC. 4990. What deemed adulterated or impure milk
For the purposes of this chapter, the addition of water or any other substance or thing to whole milk or skimmed milk or partially skimmed milk is hereby declared an adulteration, and milk which is obtained from animals fed upon waste as defined in this chapter, or upon any substance of an unhealthy nature, is hereby declared to be impure and unwholesome, and milk which is proved by any reliable method of test or analysis to contain less than twelve and one-half per cent. of milk solids to the hundred pounds of milk, or than three pounds of butter fat to one hundred pounds of milk, shall be regarded as skimmed or partially skimmed milk, and every article not containing fifteen per cent. or more of butter fat shall not be regarded as cream.

SEC. 4991. Enforcement. It is hereby made the duty of the dairy commissioner to enforce the provisions of the two preceding sections.

STATE OF IOWA,
OFFICE OF ATTORNEY-GENERAL, }
DES MOINES, July 7, 1898. }

Hon. L. S. Gates, Dairy Commissioner, Des Moines, Iowa:

DEAR SIR—You asked for my opinion in reference to the necessity of proving the *intent* of violating the provisions of section 4989 of the code of 1897. You propounded the following inquiries:

DES MOINES, Iowa, July 6, 1898.

Hon. Milton Remley, Attorney-General, Des Moines, Iowa:

DEAR SIR—I would like your opinion on the following point in the prosecution of offenders who sell milk below standard (3 per cent butter fat):

Is it necessary for the state to prove only that the offender sells for sale milk below what the law requires (3 per cent butter fat)? Is it

necessary for the state to prove that the one who sells or offers for sale milk below standard had an intent to deceive, or actually watered or skimmed or otherwise adulterated the milk offered for sale?

Yours respectfully,

L. S. GATES,
Dairy Commissioner.

Answering, I would say that the statute does not contemplate the necessity of proving that the party who adulterates milk, or offers the same for sale when adulterated or in any other condition forbidden by law, has an intent to violate the law.

In other words, he who offers milk for sale must know that it is pure milk. It must be in no manner "unclean, impure, unhealthy, adulterated, unwholesome or skimmed milk, or milk from which has been held back what is commonly known as 'strippings,' or milk taken from an animal having disease, sickness, ulcers, abscesses or running sore, or which has been taken from an animal within fifteen days before or five days after parturition."

Neither is it necessary to prove that the party offering milk for sale adulterated the same, or that he had knowledge that the same had been adulterated, or that he had any intent to violate the law.

See section 88, Wharton's Criminal Law, eighth edition. *Com. v. Faren*, 9 Allen, 489; *Com. v. Waite*, 11 Allen, 264; *State v. Smith*, 10 R. I., 258.

Section 4990 of the code of 1897, describes what the law contemplates to be adulterated or impure milk. It reads as follows:

SECTION 4990. "For the purposes of this chapter, the addition of water or any other substance or thing to whole milk or skimmed milk, or partially skimmed milk, is hereby declared an adulteration, and milk which is obtained from animals fed upon waste, as defined in this chapter, or upon any substance of an unhealthy nature, is hereby declared to be impure and unwholesome, and milk which is proved by any reliable method of test or analysis to contain less than $12\frac{1}{2}$ per cent of milk solids to the 100 pounds of milk, or than three pounds of butter fat to 100 pounds of milk, shall be regarded as skimmed or partially skimmed milk, and every article not containing 15 per cent or more of butter fat shall not be regarded as cream."

Yours respectfully,

W. H. REDMAN,
Assistant Attorney-General.

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