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CREAM

PRODUCERS

OF THE

INDUSTRY

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CREAM PRODUCERS GUIDE

WM. FRANK GLENN
South Sioux City, . . . Nebraska

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INTRODUCTION.

The character and standing of most men are known best at home. Malicious statements calculated to discredit the motives of others, usually bear a most searching scrutiny. In the absence of corroborative or contradictory evidence to the contrary, the reader may assume at least that fifteen years of actual participation in a given line of business, naturally qualify one to speak with authority.

Individuals, business firms and bankers, of South Sioux City, Neb., will verify the writer's claim of integrity, qualification, character and standing.

Wm. Frank Glenn.

CREAM PRODUCERS' GUIDE.

The contents of this guide is of **special interest** and **great importance** to cream producers.

Should the inference be made that there is nothing more you might know with advantage to yourself, such inference must spring from selfish motives; no other **proof** is **needed** to convince the intelligent farmer that he should know **all there is to know**.

If you have been led to believe that the whole subject of buying, transporting, manufacturing and selling of cream and butter was too complicated for the ordinary producer to understand, **stop** and **reflect**.

You would hardly expect that those interested only in the **profits** would explain in detail.

A thorough understanding of both the buying and selling is not only desirable, but a **positive necessity**.

You may already know in a meager way something of sampling, grading, testing, and shipping, **but here your information stops.**

Your ability to see clear through and around any private or business matter, is due to the knowledge you possess concerning **the matter under consideration.**

You should know to a reasonable degree of **certainty**, not only the buying cost of cream, the cost of transportation and other expenses in connection with it up to the time it is delivered at the creamery, but there are many other things that are of **extreme importance to you.**

The system under which you are selling your

cream should be thoroughly understood in all its details.

Above all others you should post yourself on the following subjects, especially when your success or failure in the dairy business depends so much **on knowing them:**

The highest commissions paid for buying cream.

The lowest commission paid for buying cream.

The churn over run.

The manufacturing cost of butter.

The selling cost of butter.

The relative cost of buying cream in your own state as compared with others.

The variation in station prices paid.

The percentage of butterfat produced in the various months of the year.

The relation of shortage to station buying, and
churn over run.

The reason for the destruction of the local
creamery.

The unnecessary expense of the ordinary system of
handling cream.

The birth of the centralized creamery.

The buying practices.

The unreasonable profits.

The cause and effect of reducing buyers' com-
missions.

The manufacturers' profit.

The buyers' net profit.

The reason why centralized creameries get the
business and profit, whether sold at the station
or shipped direct.

The cold storage as a price leveler.

A thorough study of these pages will give you a fairly accurate knowledge of the subjects mentioned.

Condensed illustrations of certain paragraphs contained herein, to which your attention is **especially directed**, will be found on pages 74 to 75.

THE ORDINARY STATION SYSTEM—AN OUT- GROWTH OF PAST NECESSITY.

1. The producers of cream, being interested mainly in the essential elements of the creamery business, as affecting them—therefore our remarks here will be brief and made with the sole object of being understood rather than bewilder the reader with nonessential matter.

BIRTH OF THE CENTRALIZED CREAMERY.

2. Reducing the manufacturing cost of butter, by churning it in large quantities was the primary and accepted object for the birth of the centralized creamery. Later developments, however, lead us to speculate on the **real designs** of the promoters.

CAUSE OF THE DESTRUCTION OF THE LOCAL CREAMERY.

3. Cash buying stations were established in the central western states some twenty years ago. Many of the local country creameries at that time found it profitable on account of **fancy prices offered**, to sell their cream to the centralized creameries instead of churning it. Later, on account of dissatisfaction in the matter of testing, and the **reduction of prices**, a few of them attempted to re-open for business, but by that time buying stations had been established in all territory surrounding them, as well as in their own town, making it difficult to operate a local creamery on a paying basis. It was no longer optional with him as to what the paying price should be for cream; he was compelled to meet the **station prices** or close his creamery, which was done in many cases.

VARIATION IN STATION PRICES.

4. In many instances the **price set** for the local creamerymen exceeded the station prices paid at **outside points** where there was no local creamery ; there being two or more stations in his town by this time, one or the other of the buyers would for some **unknown reason** fail to receive instructions to lower or raise his paying price to correspond with the other, when a price war would be started immediately, lasting for days and **possibly weeks**, with the local creamerymen perhaps staking his **last dollar** in the attempt to protect his business from destruction.

UNNECESSARY EXPENSE.

5. The word "necessity" used in the heading of this chapter applies to the ordinary **station system** of cream buying. Below is listed the station equipment and various items of expense necessary to successfully carry on the business **on this plan**:

Testing equipment.

Shipping cans.

Check books.

Report books.

Acid for testing.

Stationery.

Oil for heating water.

Drayage on cream to depot.

Banking arrangements.

Transportation charge on cream.

Drayage at destination.

Clerical expense at office.

Coal for heating station.

Lighting of station.

Water rent.

Guaranteed salaries at some stations.

Returning equipments from discontinued stations.

Buyers' commission on butter fat.

Telephone rentals.

Postage stamps.

Revenue stamps.

Station rent.

Advertising.

Field superintendent's salary and expense.

Loss on account of unreliable buyers.

6. It will be shown later that many of these items of expense are **wholly unnecessary** even under the station system.

CHANGED CONDITIONS.

7. In the beginning, it is well to remember that the employment of superintendents, or instructors in sampling and testing cream, arranging for station building, etc., had a proper place in the business. Conditions are reversed today as there are more buyers who fully understand the business in detail, than there are places to put them.

8. Under this system each buyer must contribute to the salary and expense of field superintendents an item of \$50 per year. If this should seem unreasonable to you, or be disputed by others, inquire as to the number of stations the one calling on your buyer oversees. It will be found not to exceed 54. Divide this number into \$2,700, his salary and expenses, showing that the buyer's proportion is the amount named above. The superintendent is no doubt a jolly good fellow and possibly the buyer feels that the money is well spent. He may have been running

his present station for only **eight** or **ten years** and feels the necessity of an expert to check up his accounts, yet he would resent the insinuation that a guardian be appointed to handle his affairs.

9. The custom in the past has been to furnish almost anything that might be required in order to establish a station **at any given point**. The fact that there are already several stations there has but little bearing on the case.

10. Should the prospective buyer refuse to accept the proposition on a commission basis, and he seemed to have influence in that community, he would be paid a guaranteed salary, a station equipment would be shipped out to him, rent and other expense would be arranged for, when he would **attempt** to buy the cream **then going** to the **other buyers**.

Mistake of Overzealous Superintendent.

11. His adaptability for the cream business may have been overestimated by the field superintendent; possibly the butter fat bought during the first month would not exceed 200 pounds. The buying cost of this butter fat to the company would be 20 cents, in addition to the price of the fat.

12. The buyer may give numerous excuses why he bought so little cream and make great promises for the future. He is left there for another month on the same basis and with the **same result**, when he is finally replaced by one supposed to possess business getting qualities. Another two months' attempt to gain a foothold and the equipment is shipped back to the company to be sent out to some other point. Like throwing snow balls against the side of a barn.
Some of them stick.

13. The producer not giving this matter any particular attention, may say this is the business of the company. Let them pay the bills. But, as you are the main spoke in the wheel in producing the raw material, **these methods** affect the price received for your cream.

14. If you would attempt to conduct your own affairs in the same manner, paying \$1.50 for a pound of steak when the regular price is 15 cents, \$20 for a sack of flour when it may be bought for \$2, or \$600 for a wagon, the usual price of which is \$60, you would immediately be considered incapable of looking after your own business. Anyone knows you would go broke, **and still you wonder** why the other fellow continues to prosper.

15. **Unreasonable and uncalled for** prices for cream are sometimes paid over a large territory, the outward reason given that some company contracts with a buyer who formally bought for some other

company, who within the 30 day limit as set by **custom, gentlemen's agreement, business courtesy**, decides to again go into the business of buying cream.

16. Thousands of dollars have been **squandered** in the above manner, the producer benefiting greatly should he by chance be in the war zone. The excess price paid is often **ten** or more **cents** per pound on the butter fat, as shown by market quotations, and the prevailing prices paid in other states and localities.

17. Either these **vast amounts** come from the profits of the business or the price paid to the producer. Just as there is calm after a storm, the general price falls after these price wars, even to a point lower than normal.

18. If these amounts come from the **profits** of the business, then we must conclude that they are **UNREASONABLY LARGE**. If the price that the farmer receives for his cream is **less** than it should be (and as it surely is) he has a remedy that may easily be applied.

Volume the Only Redeeming Feature.

19. To secure a large volume of cream, the cash station system is admitted superior to any other known method. In this particular it may be considered a success, but from the viewpoint of the producer it requires a great **stretch of imagination** to give it the **stamp of approval**.

Reduction of Commissions.

20. During the latter part of 1915 the centralized creameries operating in the central western states began reducing the buyers' commissions, **AS IF BY**

INSTRUCTIONS FROM ONE CENTRAL HEAD.

During this reconstruction or adjustment of a buying basis, buyers who **attempted to contract** with other companies found there was nothing to be gained by a change, **providing they could do so.**

21. The guaranteed salary features of many commission contracts were discontinued, as were also the straight salary contracts in mostly all instances.

Exceptions to this were made, however.

22. Buyers' contracts today stipulate a commission ranging from $1\frac{1}{2}$ cents per pound on the butter fat delivered at depot, to 2 cents per pound on the butter fat and all expense allowed.

23. It is seen that there is a difference of more than 1 cent per pound in the actual buying cost of the butter fat to the manufacturer in the flush summer months, as the overhead expense under the 2 cent contract will equal eight-tenths (8-10) of a cent in some cases, making this butter fat cost two and 8-10 (2 8-10c) cents, while in the slow months of winter it will run to three (3c) cents or more.

24. As a cream producer the subject of **salaries** and **commissions** are of vital importance to you. Other features of the business connecting the chain of circumstances leading to, and being a **vital part**, are no less essential to a thorough understanding of the whole subject.

25. The entire territory of one field superintendent figured recently, covering a period of one year,

with twenty-six working days to the month and at ten hours a day,—it was found that the average wage received by all buyers was ten cents (10c) per hour, or one (\$1.00) dollar per day, **on the reduced commission basis**, while on the former basis the figures show \$1.30 per day.

ANALYSIS OF REDUCING BUYERS' COMMISSIONS.

26. In connection with the justice of reducing buyers' commissions, or the necessity for so doing, when the facts bearing on the matter are considered, the average day laborer receives from 20c to 25c per hour. The former amount will serve your purpose for comparison.

27. The buyers were told in the argument presented as to why the commissions should be reduced; that the cost of buying the cream had reached a point where it was **no longer possible to meet the direct shipping prices**; that this was caused principally by the high commissions being paid to the buyers.

CAUSE AND EFFECT OF REDUCING BUYERS' COMMISSIONS.

28. Analyzing the reason, one is brought to the conclusion that there are too many buyers; that the reduced commissions make it impossible for all of them to remain in the business of buying cream. The **burden** of this most practical method of eliminating the **amount** of competition **fell on the buyers**. No manufacturer intended to discontinue business at any of the points where he might be represented, yet all of them professed the **positive necessity** of compelling their buyer to handle the cream on the **lower commission basis**. Each expected the other manufacturer's buyer to make so little that he would **starve out** (while his own buyer was being used to further the plan, and bring about the desired re-

sults). The process is certain (but the system employed **must be condemned**). A clean cut division of territory would **conflict with federal laws** (it might be shown that there was a combination in restraint of trade). To avoid this, **the buyers is put on the job**. Being an obedient, trustworthy fellow, he may be counted on to do his best.

29. A further analysis and consideration of the unnecessary expense found in the ordinary system of cream buying, is conclusive evidence that the buyers' commissions are of secondary consideration in comparison. A close inspection of the methods, and items of expense enumerated below is convincing evidence that the buyers' commissions are really a very small portion of the total. (Study the list carefully).

Buyers' commission.

Station rent.

Coal for station.

Lighting of station.

Acid for testing.

Postage stamps.

Revenue stamps.

Drayage on cream to depot.

Transportation charge on cream.

Investment in station equipment.

Deterioration of station equipment.

**Unnecessary Expense Found in the Ordinary Cash
Station System.**

Telephone rental.

Superintendent's salaries and expense.

Guaranteed salaries at some stations.

Straight salaries at other stations.

Freight charges on station equipments in the
spring, and their return in the fall.

Report books.

Check books.

Order blanks.

Commission blanks.

Stationery.

Two-thirds of clerical expense at office.

Loss due to unreliable buyers, etc.

30. The list shown under the line, with the possible exception of telephone rental, are unnecessary.

31. The above, he may have been informed, brought the buying cost to the prohibitive figure of about 5c per pound of butter fat, which was substantially correct regardless of the number of pounds handled.

32. In other words, when the price of butter fat is 20 cents per pound at the station, as it usually is in the flush of summer months, more or less, the cost of buying and delivering it to the creamery, clerical expense included, is about **one-fourth** the price received by the farmer.

33. You may now figure what portion of this buying cost the buyer receives as a commission,—whether he is to blame, **or is it the fault of the system.**

34. It would appear that some of the more economical buyers were able to bank the greater portion of the \$1.30 they received under the old basis, hence the advisability of reducing it to \$1.00.

35. The value of butter fat is determined by five factors: The price paid for the butter fat in cream form; buying; transporting; manufacturing, and selling cost.

CHURN OVER RUN.

36. Some producers are quite familiar with the subject of churn over run; a very large majority of them, however, know no more about it than does the average man of testing cream or making cheese.

37. A few years ago there was **no limit** to the amount of moisture that might be put into butter. At that time the buttermaker who could inject the most moisture, and at the same time produce a suitable grade of butter with the necessary firmness to stand up, was in demand.

38. The ingredients of butter are butter fat, casein, salt and water. With no limit to the amount of water that might be used, it was not uncommon for the churn over run to show 30% or 35%.

39. Today the moisture in butter is regulated by law and stipulates 16% as the maximum amount. It

is found necessary in order to comply strictly with this law, to use slightly less than this; which with the other ingredients produces a churn over run of 24% to 25%, depending of course on the accurate testing of the cream at the station, in so far as the manufacturer is concerned.

40. For the purpose of calculation we will use the lower figure of 24% as a reasonable churn over run. Most manufacturers exceed this amount, which means that from each 100 pounds of butter fat there is 124 pounds of butter made.

BUYING COST OF BUTTERFAT.

41. The average buyers' commission will not exceed $2\frac{1}{2}$ c per pound on the butter fat bought, including all expense of the station and drayage, on the reduced commission basis.

TRANSPORTATION COST OF BUTTER FAT.

42. The average transportation charge does not exceed $1\frac{1}{2}$ cents per pound on the butter fat.

MANUFACTURING COST OF BUTTER.

43. The manufacturing cost including all expense, does not exceed $\frac{3}{4}$ c per pound on the butter fat.

SELLING COST OF BUTTER.

44. The average selling cost does not exceed $\frac{1}{2}c$ per pound on the butter fat.

45. The above shows a total buying, transporting, manufacturing and selling cost of $5\frac{1}{4}$ cents per pound on the butter fat.

46. We believe in being liberal, both in practice and the consideration of any subject, making ample allowance for variation in the price of material, additional cost of labor, etc., and an extra $\frac{1}{4}$ cent per pound on the butter fat is allowed, making the total cost of all expense attached to the buying, manufacturing and selling of butter $5\frac{1}{2}$ cents per pound.

**PERCENTAGE OF BUTTER FAT PRODUCED IN
THE VARIOUS MONTHS OF THE YEAR.**

47. Here we desire to call your attention to the percentage of butter fat produced and bought in certain months of the year, covering a period of six (6) years over a wide territory.

48. **SIXTY-FIVE PER CENT** of the year's production of butter fat in the central western section of the country is produced during the months of **May, June, July, August and September.**

49. **FIFTEEN PER CENT** is produced in the months of **October, November and December.**

50. Twenty per cent is produced in the months of **January, February, March and April.**

51. **June, July, August and September,** being the most important in relation to the station prices paid,

there is 54% of the year's butter fat bought during these months. These percentages are affected to a certain extent by weather conditions, but the figures may be taken as **substantially correct**.

52. We will assume that the Elgin market or New York firsts, which are the ones ordinarily referred to, is quoted at 30 cents, and that the station price is 26 cents, or 4 cents under these markets.

53. It will be found that the above fairly represents the average station price during the months of **June, July, August and September**, in relation to these markets.

54. On the above basis 100 pounds of butter fat would cost \$26; to this add the church over run of 24 pounds, making 124 pounds of butter. This butter sold at one cent under the markets, or 29 cents, has a value of \$35.96.

55. The difference in the **cost price** and the **selling price**, it will be seen, is \$9.96.

56. We will now deduct the buying, transporting, manufacturing and selling cost, which is $5\frac{1}{2}$ cents per pound, or \$5.50 per hundred, leaving a balance of \$4.46.

57. The station price you understand is not always 4 cents under the markets, it being 3 cents at times, especially when there is very little to be bought. Again, the price will be 5 cents under these markets at times, during the months of **June, July, August** and **September**.

58. You will keep in mind that the churn over run is of much greater value when the **paying price** for butter fat and the **selling price** of butter is **high**.

59. On the basis of 100 pounds of butter fat bought, and the markets quoted at 35 cents, making the **selling price 34c**, the churn over run of 24 pounds has a value of \$8.16, while if the **selling price** of butter is 24 cents the churn over run is worth \$5.76.

CENTRALIZED CREAMERY GETS THE BUSINESS AND PROFIT, WHETHER SOLD AT THE STATION OR SHIPPED DIRECT.

60. The volume of butter fat bought during the flush, or summer months, is affected but little by the station prices paid. The producer is **very busy** during that season of the year; he gives the matter but **little attention**, but should he do so, there is **no alternative**. His cream must be sold and the paying **prices are uniform**. Under this condition, if the buyer is paid $1\frac{1}{2}$ cents per pound on the butter fat, a ten gallon can of cream nets him 36 cents, figured at 24 pounds of butter fat to the can, or 48 cents, if he is paid a commission of 2 cents per pound on the butter fat, provided, however, he has **none** of the **station expense to pay**.

Should the lower prices be the means of compelling a great many farmers to ship their cream direct, the buyers' commission of course is less, but as some creameries operating on the station buying system, are interested in, or own direct shipping creameries, and quote direct prices at points where they operate stations, (in this case) they get the business together with the profit, whether it is sold at the stations or shipped direct.

You are told of the great advantages of the **station buying system**, by the manager in charge of the plants operated on that plan, while the one having charge of the **direct shipping plant** bombards you with circular letters in the attempt to show why your cream should be shipped direct to the creamery,

that the commission paid to the buyer would be saved, etc.

Both of the gentlemen above mentioned, **draw their salary from the same employer**, which is equivalent to shipping to Jones, or Jones.

BUYERS' NET PROFIT.

62. The example below shows the buyers' income and net profit, from a station buying 30,000 pounds of butter fat per year, where the commission received is $1\frac{1}{2}$ cents per pound on the butter fat and 15 cents per each 10 gallon can of cream shipped.

63. The months of **June, July, August and September** are figured separately in this example, when the station price will be found to be around 4 cents under the markets.

64. **FIFTY-FOUR PER CENT** of the year's total butter fat is bought in the above **four months**, or 16,200 pounds in this example.

65. The buyer's commission on 16,200
pounds is.....\$243.00

66. The allowance of 15 cents per can is... 86.25

Total commissions.....\$329.25

67. **Buyer's Expense:**

The item of coal is omitted.

Rent at \$7 per month.....\$ 28.00

Oil for heating water..... 2.00

Drayage on 575 cans, at 5 cents..... 33.75

Postage on reports..... 1.33

Revenue stamps..... .66

Washing powder..... .66

Total expense.....\$ 66.40

Total commissions.....\$329.25

Total expense..... 66.40

Buyer's net profit for four months.....\$262.85

68. **FORTY-SIX PER CENT** of the year's butter fat is bought in the months of **October, November, December, January, February, March, April** and **May**, an average of $5\frac{1}{2}\%$ per month.

69. In the month of **May** alone the production is 11% and is considered one of the big months of the year, yet it is placed in the doubtful column in so far as the profits are concerned, due to the uncertainty of the buying prices of butter fat at the stations. It may be said with some degree of certainty that the price paid for butterfat during the last half of May, correspond with **June, July, August, and September**, or 4c under the markets.

70. These percentages show that a station buying 30,000 pounds of butterfat per year, will buy an

average of 5% or 1,500 pounds per month from **October 1 to April 30**. They show that the average monthly amount of butter fat bought from **October 1 to May 31** is 1,650 pounds, or 5½%.

The yearly income of a buyer having 30,000 pounds of butter fat on the above basis is.....\$556.10
His expense for the year may be figured at... 150.00

Buyer's net income for year.....\$406.10

On the station buying system the average butter fat bought at all stations is near 20,000 pounds, or one-third less than the above example, a yearly income of \$270.78.

MANUFACTURER'S PROFIT.

On 16,200 pounds of butterfat, with the markets at 26 cents, the station price 22 cents, and the buyer's commission $1\frac{1}{2}$ cents on the butterfat, and 15 cents per 10 gallon can drayage:

Cost of butter fat.....	\$3,564.00
Buyer's commission.....	329.25
Transportation cost.....	243.00
Manufacturing cost.....	121.50
Selling cost.....	81.00
Total cost.....	\$4,338.75
Butter fat bought, pounds.....	16,200
Church over run, pounds.....	3,888
Total butter manufactured, pounds.....	20,088
Butter sold at, per pound.....	25c
Total value of butter.....	\$5,022.00
Total cost of butter fat.....	4,308.75
Balance.....	\$683.25

VARIATION IN BUTTER FAT—COST AT DIFFERENT STATIONS.

72. In the various departments of government work there is a fixed commission or salary. Men qualified for these positions know in advance what to expect in the way of remuneration. There is no discrimination—whether he be a congressman, senator, attorney general, postmaster of some large city, or one in a town of 200 inhabitants.

73. Moulders in a foundary where piece work is the system in effect all receive a certain price for turning out a certain piece of work.

74. The cream buyer must first secure a license, or in other words, qualify for the position. After doing so, is there any logical reason why he should not receive the **same commission** as other buyers buying for the same manufacturer?

75. The commission and expense must be considered in connection with the buying cost of the butter fat at any given point.

HIGHEST COMMISSIONS PAID FOR BUYING CREAM.

76. Perhaps Buyer No. 1 has a contract whereby he is paid 2 cents per pound on the butter fat, rent on the cream, drayage on his cream to the depot, postage on his reports, kerosene for heating water, and the coal for heating purposes. He may buy 3,500 pounds of butter fat per month in June and July. The cost of buying this butter fat is as follows:

Buyer's commission.....	\$70.00
Rent	10.00
Drayage	7.50
Postage on reports.....	.50
Kerosene	.50
Coal	3.50

Total expense.....\$92.00

Average cost per pound, 2 6-10c.

77. In contrast, Buyer No. 2 may receive $1\frac{1}{2}$ cents per pound on the butter fat, and 15 cents per can drayage, with the same amount of butter fat bought.

Buyer's commission.....	\$52.50
Drayage	21.75
	<hr/>

Total expense.....	\$74.25
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Average cost per pound, 2 1-10c.

78. Buyer No. 3 has a contract calling for $1\frac{1}{2}$ cents per pound on the butter fat and 5 cents drayage. He also buys the same amount of butter fat.

**LOWEST COMMISSIONS PAID FOR BUYING
CREAM.**

Buyer's commission.....	\$52.50
Drayage	7.50
<hr/>	
Total expense.....	\$60.00

Average cost per pound, 1 7-10c.

79. It would appear that the actual yearly buying cost to the manufacturer would be the amount shown above, namely: Two and six-tenths cents per pound in the first example; two and one-tenth cents in the second and one and seven-tenths cents in the third. That is not the case, however.

80. In example No. 1 there is a fixed expense, such as rent, kerosene, and coal, whether there is 3,500 pounds of butter fat bought in a month, or

1,500 as would be the case in winter months. The total expense of the lower amount would be \$47.60 and the cost per pound to the manufacturer 3 1-10c against 2 6-10c as shown in the example.

81. In examples No. 2 and No. 3 the buying cost to the manufacturer remains stationery at 2 1-10c and 1 7-10c.

DISCRIMINATION IN STATION PRICES PAID IN ADJOINING STATES.

Discrimination in station prices, between adjoining states, is a general practice among centralized creameries, since state laws prevent the practice within states. The variation is often (3) cents per pound on the butter fat. **Investigation always reveals the cause.** An instance is here cited of a farmers' creamery being built at Fremont, Neb., at the beginning of 1916, which accounts for the station prices in Nebraska being from 1 to 3 cents higher than they have been in Iowa and South Dakota during the past two or three months, or during March, April and May. The farmers of Nebraska have benefited, and may possibly continue to do so if their plant succeeds in weathering the discrimination period, which it may do if business methods are applied.

SHORTAGE AT STATION.

82. So much has been said and written on the subject of shortage, which is the difference in the number of pounds of butter fat paid for by the buyers, according to his weights and tests, and the number of pounds claimed to be received by the manufacturer, according to the weights and tests of their chemist.

**RELATION OF SHORTAGE TO STATION
BUYING AND CHURN OVER RUN.**

83. Since the churn over run is affected to a greater or less extent by the accurate or inaccurate weighing and testing of cream at both the station and at the factory, and in view of the custom of charging the buyer with any shortage over 1 per cent as shown by the manufacturer's weights and tests, there is a constant cross fire of opinion going from one end of the line to the other, buyers have been known to receive sharp letters in the latter months of the year in reference to shortage, when their station showed several hundred pounds over run for the previous months of the year.

84. The custom among centralized creameries operating on the station system, is to play for an

average, which is less than one-half of 1 per cent shortage on the total year's business. Some buyers have an actual shortage, especially those who are quite aggressive, but unpopular so to speak, while the buyer who stands well in his community and is able to buy his share of the cream on his merits or popularity, usually is made to make up the difference or **shortage** that the unpopular buyers may show at some other point.

85. The above must be seen, is unfair to the producer who delivers his cream in absolute confidence to a buyer having the good will and respect of business men and farmers as well, one who may be, in fact, the sole of honor, but through constant nagging is forced to take some heed of the numerous letters, calling his attention to supposed shortage, when, as a matter of fact, there is no shortage, **which is proven** by the **churn over run obtained** by centralized creameries.

**PERCENTAGE TABLE OF BUTTER FAT
BOUGHT.**

86. In the table below is shown the percentage of butter fat bought in the several months of the year. This may be considered as the amounts produced also.

January	5 per cent	July	17 per cent
February	4 per cent	August	11 per cent
March	5 per cent	September	9 per cent
April	6 1-2 per cent	October	6 per cent
May	11 per cent	November	4 per cent
June	17 per cent	December	4 1-2 per cent

COLD STORAGE AS A PRICE LEVELER AS APPLIED TO STORING BUTTER.

87. The percentage table above represents more than appears on the surface. A glance at the line drawn from **May** and **June** at the lower left, to **July**, **August** and **September** at the upper right indicates the **LOW STATION** or **BUYING PRICE PERIOD**,

88. The figures 12, (representing the months of the year) divided into 100 per cent, which is the total **YEARLY BUTTER PRODUCED**, shows, you will observe that the monthly consumption is 8 1-3 per cent.

89. We will now refer to the percentage table, and find that from **May 1** to **September 30**, there is an **EXCESS PRODUCED** over the amount **CONSUMED** of 23 1-3 per cent or about one-fourth of the total. This represents the **BUTTER STORED**.

90. Now refer to the line drawn from **January**, **February**, **March** and **April** on the upper left, to **October**, **November** and **December** on the lower right

(representing the **HIGH BUYING** and **SELLING MONTHS**).

91. In the above **SEVEN MONTHS** the **PRODUCTION** is 23 1-3 per cent **LESS** than the **CONSUMPTION**, and during this time **STORAGE BUTTER** is **SOLD**, at an **AVERAGE PRICE** of near 32 cents per pound, or 10 cents per pound **ABOVE** the **BUYING PRICE**.

92. The farmer having a total of 1,000 pounds of butter fat during the year, sells 65 per cent, or 650 pounds of it for near 22 cents per pound, receiving \$143.

93. He sells the remaining 35 per cent, or 350 pounds, for near 32 cents per pound, receiving \$112, a total of \$255.

94. The manufacturer pays the farmer \$255 for 1,000 pounds of butter fat.

95. From this 1,000 pounds of butter fat he makes 1,240 pounds of butter.

96. **FIFTY-EIGHT PER CENT** of this butter or 719 pounds is sold between October 1 and April 30, for 1 cent under the markets, which is figured at 3 cents above the price paid to the farmer at that time, or 35 cents per pound, making the selling price 34 cents per pound, and the amount received \$244.46.

97. The remaining 42 per cent, or 521 pounds is sold between May 1 and September 30. During this time the market is found 4 cents above the station buying price, making the selling price 25 cents and showing a value of \$130.25.

Total selling price, \$347.71.

98. Average selling price of 1,000 pounds of butter fat bought from the farmer, 37 cents per pound.

99. Average price paid the farmer for 1,000 pounds of butter fat, 25 cents per pound.

100. Difference in the buying and selling price, 12 cents per pound.

UNREASONABLE PROFITS.

101. At this point of the proceedings the retail merchant takes charge of the butter, and receives about 5 cents per pound for his retail profit, this when added to the toll already taken, shows a net difference in the price **received** by the **producer**, and the price **paid** by the **consumer**, to be 17c per pound.

102. **It shows** that when the producer receives \$255 for cream, that it costs \$170 to deliver it to the consumer in the form of butter.

103. **It shows** that when the producer delivers a 10 gallon can of cream to a station, that he receives an average of \$6.22 while the butter made from the same cream sells to the consumer for \$10.36.

104. It shows that when the producer delivers a 10 gallon can of cream to a station, the cost of buying, transporting, manufacturing, storing and selling is \$4.14.

105. It shows that the producer selling cream on the station buying system, pays 66 per cent of the price paid him for his butter fat, to the station buyer, transportation company, manufacturer, speculator and retail merchant.

106. It shows that for each \$1.00 received by the producer for cream, someone else gets 66 cents.

107. The producer should have no difficulty in locating the **PRICE LEVELING** process of **COLD STORAGE** as applied to the **CREAMERY BUSINESS**.

PRODUCTION AND CARE OF CREAM.

108. Under the present conditions there is but little incentive for the producer to deliver **FIRST GRADE CREAM** as he receives no higher price for it than is paid for second or third grades.

109. One producer may have better facilities than another for taking care of cream after separation, but it is within the means of all to provide a suitable place, at little or no expense, where it may be kept in proper condition.

110. There is a distinction made in the price of horses, cattle hogs, wheat, oats and corn, in fact everything the farmer sells, or has for sale, except cream (which is cream) and paid for as such, whether it is good, bad or really unfit for the making of butter.

111. Thoroughly experienced men are able to grade cream accurately, yet the attempt to do so with complete satisfaction to all producers is an extremely difficult task, and since it is found so difficult there is but one thing to do—every producer should take it upon himself to deliver **FIRST GRADE CREAM** whether his neighbor does or not.

112. With the above thought in mind, the average grade of butter may be increased to a marked degree.

113. We take the liberty here of suggesting that before each milking, the cow's udder be washed thoroughly, and as the hands are washed before each meal, so they should be before milking, as absolute cleanliness is imperative in producing first grade cream, and making No. 1 butter.

114. The bowl and tinware of separators should **never** stand from one milking to another **without washing.**

115. The practice of running both the night's and morning's milk through a machine and washing it after the second run, produces No. 2 or No. 3 grade cream.

116. High test cream remains in better condition for a greater length of time, and the express charges are less, than on low test cream.

117. Never mix warm cream with cold, the warm cream should be cooled as quickly as possible after separation, then when **mixing the two together, STIR IT WELL.**

118. Cream by all means should be kept cool while it remains on the farm.

119. A wet blanket should be thrown over the can while it is being delivered to the depot.

120. The producers REWARD for carrying out the few suggestions above, is the satisfaction that comes with the knowledge that he is doing his part towards making it possible to make a better grade of butter, and as a result he may expect a **better price** for his cream.

CREAM TESTING INSTRUCTIONS FOR THE FARMER.

First. The cream to be tested must be stirred until contents of the can is uniform.

Second. After stirring the cream (not a minute after) but immediately, take out one-half pint as a sample.

Third. In cold weather the sample should be warmed, and also the sulphuric acid to be used.

Fourth. Stir the sample well, then draw the cream into the pipette with the mouth, until it is

level with the **mark** above the **bulb**, blow the cream into the test bottle, rinse the pipette with warm water and **add this** to the cream already in the test bottle.

Fifth. The same amount of sulphuric acid is then added to the cream, with the test bottle at an angle of 45 degrees, letting the acid run down the side of the bottle instead of through the cream. A **rotary motion** of the test bottle will mix the **cream** and **acid** without boiling over. The mixture should be a **dark brown color**. The bottle should always be held away from the face **when adding the acid** to the cream.

Sixth. Set test bottle in the tester, with another bottle on the opposite side as a balance. Turn tester for 4 minutes, Then add **warm water** to bring the butter fat up into the neck or graduation of the test bottle, then turn it two minutes more.

Seventh. A curvature will be found at the top of the fat column, the test is read from the **dark line** of this curvature to the **extreme bottom** of the butter fat.

Note the example below:

Pounds of cream.....	79
Multiply by the test.....	32
	<hr/>
	158
	237
	<hr/>
Pounds of butter fat, (25 2-10).....	25.2-
Price of butter fat.....	25c
	<hr/>
	1260
	504
	<hr/>
Amount	\$6.30

Use the Wagner, or Nafis, 50% straight reading test bottles, graduated to $\frac{1}{2}\%$, and a 9 cc. pipette.

The law requires a **buyer of cream** to weigh the charge of cream being tested, but the method above given is sufficiently accurate for **use** on the **farm**, tests made of a **thin density** of cream will be practically correct, while the reading of a **heavy density**

cream will be slightly less than would show if the charge be weighed, but by the use of a **pipette** you are relieved of the expense of buying a scale.

Complete testing outfits may be bought from the Creamery Package Manufacturing Co., of Omaha, and Chicago, and range in price from \$3.50 to \$4.50.

In ordering testing outfits you should include the following :

One 2 bottle tester.

One 9 cc. pipette.

One 9 cc acid measure.

Two 50% cream test bottles.

One whole milk bottle.

One skim milk bottle.

One pint of sulphuric acid.

TESTING WHOLE MILK.

Whole milk is tested in the same manner as cream, except that the test bottle used is smaller in the neck, and is graduated to 10%, **twice** the charge of ~~cream~~^{milk} is used, and also **twice** the amount of sulphuric acid.

TESTING SEPARATED MILK.

Skim milk is tested in a **special skim milk** bottle which has a double neck, and is graduated to 10-100 of 1%. The charge of milk to be tested is put into the bottle through the **larger opening**, and the fat contained in the milk is found in the **smaller opening** when the test is completed.

Greater care must be used in testing skim milk than either cream, or whole milk, the process is the same as that used in testing whole milk.

Keep Separator in Perfect Order.

The ordinary cream separator will skim to within 3-100 of 1%. Should it run over that amount you are losing too much butter fat. The separator needs attention.

Dispose of the Unprofitable Cow.

Cows giving milk testing under $3\frac{1}{2}\%$ per cent are not profitable, they should be weeded out as quickly as possible. The volume of milk given, of course, must be taken into consideration.

Whether you sell cream at a station, make it into butter on the farm, or ship it direct, the ownership of a small hand tester is by all means one of the principle necessities to successful dairying.

**CONDENSED COMMENTS ON IMPORTANT
PARAGRAPHS, REFERRED TO BY
PARAGRAPH NUMBER.**

No. 3. It is seen that the local country creamery-man **unsuspectingly** turned over his business to the centralized creamery, finding himself unable later to rectify his mistake, thus causing his almost complete elimination for many years.

No. 8. No reflection is intended as to the good intentions of field superintendents, only when their expense to the buyer is considered, together with others of a similar nature, is the system represented requiring such expense found impractical, and unable to stand the test of time.

No. 15-17. Playing for an average buying cost, in no way justifies the **visible injustice** to the **buyer**, who through lack of knowledge accepts lower commissions than others buying for the same company, or to the **producer** who may unfortunately live outside of the troubled territory.

No. 19. Consider this paragraph thoroughly now, and again after committing to memory paragraph 48.

No. 32. If the buyer's commission is $1\frac{1}{2}\%$ per pound of butter fat delivered at depot, the cost to the manufacturer when figured on the basis of the butter made, is less than (12-10) one and two tenths cents.

No. 33. Is the cash station system worthy of your patronage?

No. 40. Your neighbor Smith may resemble you, but a close inspection will show some difference.

No. 48. Why is the price of butterfat near 22 cents at this time? Because 65% of all you produce is being bought.

No. 50. Why is the price of butter fat near 32 cents at this time? Because only 20% of all you produce is being bought, and 43 1-3% is being sold.

No. 57-59. Add the margin of 4 cents per pound of butter fat, to the value of the churn over run, then have your boy figure it over to see that no mistake is made.

No. 71. If this don't suit you, don't blame the other fellow, you have a remedy.

No. 72-81. The buying cost of butter fat may have some bearing on the price you receive.

No. 82-85. There are two kinds of buyers. One ships the manufacturer more butter fat than he pays for, while the other ships less.

No. 86. Knowing this percentage table by heart, means dollars to you.

No. 101. A microscope has no place here, it looks **too large** even with the naked eye.

Nos. 104-107. That none of this may escape your attention, better talk it over with your wife.

Nos. 108-120. When you manufacture butter in addition to produce the cream, it should all be No. 1 grade.

No. 125. Refer to No. 101—then to No. 125—and again to No. 101.

**THE ONLY PROFITABLE
AND
ECONOMICAL SYSTEM
OF
MARKETING CREAM.**

Ample evidence has already been presented to show the intelligent farmer that the cash station system is far too **expensive** to be longer considered as a profitable method of marketing cream, even if handled in the most economical way.

The quality of cream is affected by standing in a warm station, **sometimes for days.**

The manufacturing cost is reduced by churning in large quantities, on this point there is no question, but no one can successfully dispute that the farmer by shipping it himself, not only eliminates the expense found in the station system, but the cream reaches the creamery in far better condition.

DIRECT FROM FARM TO CREAMERY.

Since the direct from farm to creamery method is found the **QUICKEST, CHEAPEST** and **MOST PROFITABLE**, and the necessity for churning in large quantities is admitted, in order that the manufacturing cost may be reduced to the lowest possible figure, the question arises, who manufactures the butter at this time, and who should do it?

DO IT YOURSELF, BROTHER.

There is too many standing between you and the people who consume the butter made from your cream.

Profit that is rightfully yours, now goes to others who are **not content** with reasonable returns on their investment.

Their DEEP affection for you is too closely associated with the 17 cents they receive from each pound of butterfat you sell.

Bear in mind that butterfat is produced by the millions of pounds; Sioux City creameries manufactured about 14,000,000 pounds in the year 1915, while Omaha creameries made 25,000,000 pounds in the same year, hauling no less than 6,000,000 pounds of this from the states of **South Dakota, Minnesota** and **northwestern Iowa, on which the express charge** will average $2\frac{1}{4}$ cents per pound on the butterfat.

Don't lose sight of the **injustice to producers** who sell their cream at stations, where the prices paid are **higher in one state** than they are in another, while the cream goes to the **same creamery, WHO REGULATE THE PAYING PRICES**, and make it into butter in the same churn.

Developed and applied thought is responsible for all that we have, **mere thought avail us nothing**.

The business of this country is being done on a large scale, and is being centralized more and more as time passes.

The packing house industry is a striking illustration of combined capital and brains, but is no more so than may be said of many other lines that **affect you and the consumer**.

Control of the raw material makes this possible, the centralized creameries, like other large industries, is a good thing (or a bad thing), depending on who owns and controls them.

The farmer has the raw material and is therefore supreme (unless he turns it over to those who have but little interest in either him or the consumer).

Having the cream he should manufacture and sell the butter. "**Why not?**" The expense of doing so is a mere trifle when compared with the resulting benefits, especially on the centralized plan.

If you have carefully examined the evidence herein, with particular attention given to paragraphs No. 101 and No. 125, the dictates of your own good judgment can give but **one answer (AND YOUR DECISION SHOULD BE MADE NOW).**

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